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SPECIAL ISSUE

[Suppl. to no. 12].

An Account of the

Two Hundredth Anniversary

of the

Founding of the First Botanic Garden in the American Colonies

by

John Bartram

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BARTONIA

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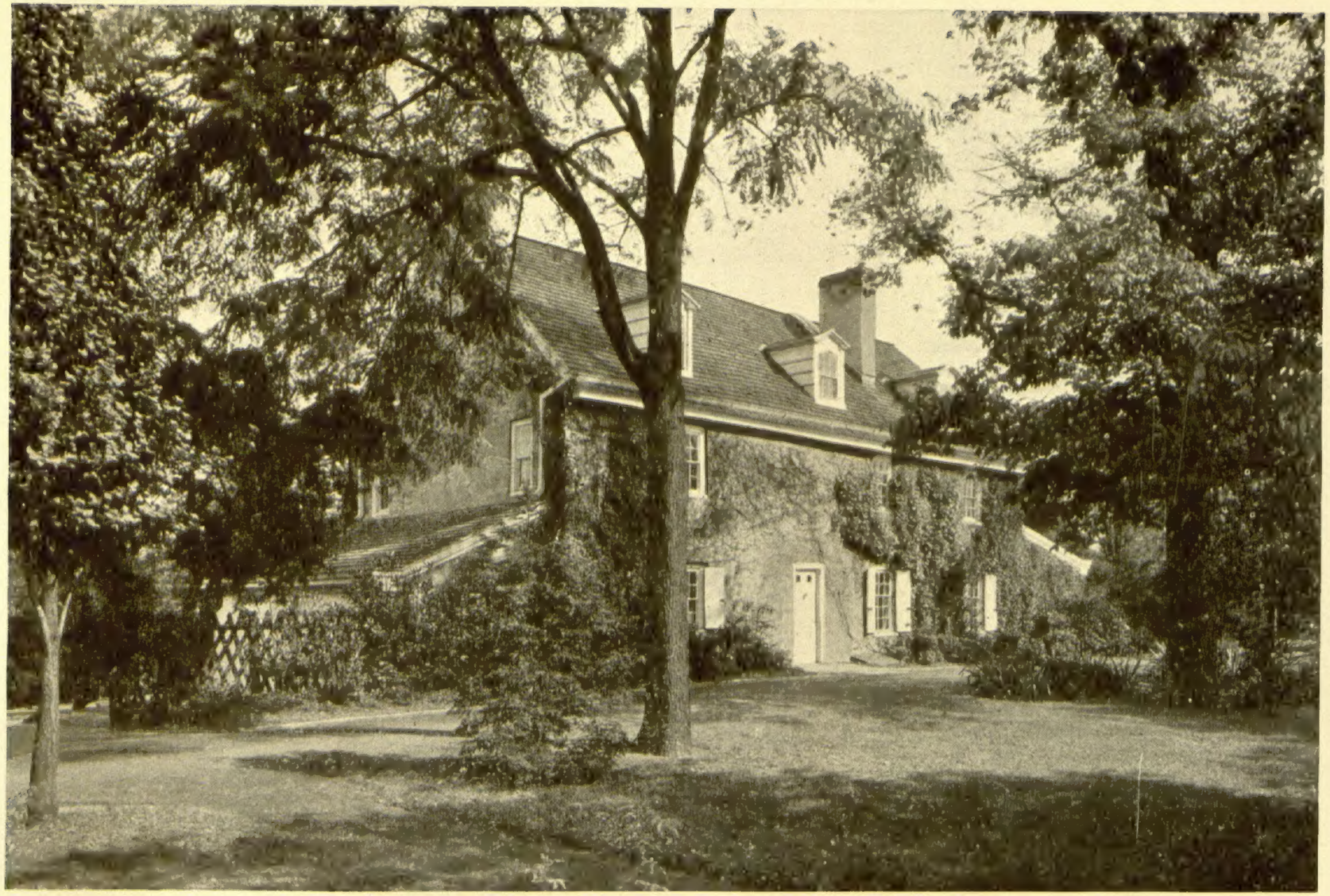

John Bartram's home at Bartram's Garden, Fifty-fourth Street and Schuylkill River, Philadelphia, Pennsylvania. Photograph taken in July, 1931, by the James L. Dillon Company.

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John Bartram

Celebration held in Philadelphia, June fifth and sixth,
nineteen hundred thirty-one

built, tea was served, and there, under the trees planted by him or his sons, the peace of a perfect June evening enabled us to relive something of the past.

Effort is now being made to develop the Garden on historic lines. While some of the original plantings survive, much has been lost through the years; we are grateful therefore that care is being taken to restore the plants that are known to have grown here a century or more ago. Such a policy must make the Garden of John Bartram increasingly a place of pilgrimage.

THE JOHN BARTRAM CELEBRATION COMMITTEE.

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John Bartram's Life and Botanical Explorations

RODNEY H. TRUE

Mr. Chairman:—

We meet this afternoon to commemorate the life and achievements of one who was rated "as a plain unlettered man," a farmer living in the colony of Pennsylvania something over two centuries ago. Other men whose names come down to us from those years were his honored friends and acquaintances. We hear of Benjamin Franklin, the philosopher; of James Logan, the proprietary representative in the Colony; of Dr. Cadwallader Colden, high official in the Colony of New York; of Dr. Fothergill, famous London physician; of Sir Hans Sloane, the physician to George II; of Linnaeus, the great organizer of Natural History; of Peter Collinson, the English cloth merchant doing business in two hemispheres.

It is hardly strange that these men should have been remembered because they had their hands on the great affairs of their time and places. But what has preserved along with their names, that of "the plain unlettered farmer" from the banks of the Schuylkill? He did two things that made his name known even to our present day; he added greatly to mankind's store of knowledge and—he planted a garden.

These results were the outcome of a life of extraordinary physical effort directed by a mind consumed by a curiosity to know and possessed by the instinct to preserve the knowledge gained in a lasting record written in living things. There was, in those days of discovery, an eagerness for information concerning lands only just being realized, this eagerness springing in part from the possibility that treasures of unguessed value might be found and in part from the disinterested urge to know the unknown. It was an age in which alert and expanding minds were eagerly and romantically exploring new worlds. Something like this is now to be seen in the wide-spread interest in the physical world. As we are

now all keenly watching for new developments in the physics of the atom, in the source of cosmic rays and in the structure and extent of the universe, so then electricity was engaging the attention of the kite-flying Franklin; of Eliot, the farmer-preacher of Connecticut; of Governor James Logan here in Philadelphia; of Bartram, the farmer-botanist on the Schuylkill and of the body of intelligent men. This same eagerness was also fully felt in the mother country where the cloth merchant, Collinson, the Dutch physician-botanist, Gronovius, the Duke of Norfolk, Lord Petre, Queen Ulrica and even King George himself kept their knowledge up to date through conversation or correspondence with scientists and with others interested in science.

John Bartram came rather suddenly into conscious relation with this spirit and was soon in the circle himself. Against such a background, we must agree that his studies stand out as an eminent individual contribution.

Let us for a moment trace the familiar story of his antecedents. It was believed that the Bartram family in England was of Norman French origin. In time, the religious fermentation that drove many Englishmen to seek greater freedom in the New World where the crust of custom and law had not yet hardened sufficiently to restrain a measure of freedom, also drove a group of Derbyshire families to the New World where, following the lead of William Penn, they arrived in 1682, the year in which Philadelphia was founded. The company settled in what is now Darby in the county of Chester. Here they took advantage of their new found liberty, and in the same year formed a meeting at Darby. Among the members was John Bartram, who had brought with him from England three sons, John, Isaac and William. William married Elizabeth Hunt of the Darby meeting and they had three sons, John, James and William. John, the eldest son, became the botanist whom we to-day celebrate. He was born in 1699, inherited a farm near Darby from his uncle Isaac, and seems to have been a farmer all his life. Here he had an opportunity to cultivate a taste for natural history that had been

with him even in childhood. He learned the virtues of the plants about him and with this information he seems in his earlier days to have administered to the sick. It is said that he added surgery to medicine and relieved his neighbors who, remote from the city, were in need of skilled help. His inclination toward medicine appears at times in his later writings and observations.

While still a young man he underwent an experience that might be likened in its effect on him to that wrought on Saul of Tarsus when the great light shined on him while on his journey to Damascus. The young farmer-physician, resting from his ploughing, observed more carefully than had been his wont, the details of the construction of the flower of a daisy. This aroused a train of meditation that resulted in what we may fairly call a conversion.

"This seeming inspiration suddenly awakened my curiosity, for these were not thoughts to which I had been accustomed. I returned to my plow, but this new desire did not quit my mind." In spite of the prudent caution of Mary Maris, his wife for four years, in spite of his lack of money, he had to "follow the gleam." "At last, I could not resist the impulse; for on the fourth day of the following week, I hired a man to plough for me and went (as many a man in search of wisdom has gone) to Philadelphia." Here he bought books on botany in a language he could not read. He hired a schoolmaster to teach him Latin and so intent was he on his subject that in three months he could read Linnaeus. Now his fate was sealed.[1] He studied the plants of his place and of his neighborhood. He soon ranged more widely and began that life of pilgrimage that brought much of the plant life of the eastern part of our country to light and enriched his beloved science as it probably never again can be enriched by any one man. Usually he stayed at home until the early fall saw the harvest over and then began a tour into the unexplored country about him. Sometimes it was toward the Blue Mountains to the

[1] For a further discussion of "John Bartram's first Interest in Botany" see page 35.

northward, sometimes eastward into Jersey with its weird plant population, sometimes to the south into Maryland. In his travels he often stayed with Friends of other meetings.

His traveling began to take a wider swing when he was about thirty years old. He had lost his wife, Mary, and in 1729, after two years, had married Ann Mendenhall of Concord Monthly Meeting. Apparently Ann either did not share Mary's objections to the life of exploration or accommodated herself and the family affairs to it. At all events, John traveled farther than before. It seemed desirable to him, as to his tribe since, to bring home something from his travels, something that could witness to the wilds explored. Accordingly, he began to bring back and plant seeds and roots of interesting things seen. He needed a place specially dedicated to science and beauty, for he found great beauty in many of the new plants seen. Hence on September 30, 1728, he purchased at sheriff's sale a tract of ground that became in time his garden. What another man had not found worth the taxes, or perhaps what another man had been forced unwillingly to give up, became the cherished home of John and Ann Bartram. With his own hands he fashioned out of the stone of the region the house that became his home, probably in 1731.

These years from 1728 to 1731 seem to have brought much cause for happiness to Bartram. He again had a helpmate, he had begun his garden and had set his house in it. He had seen treasures that botanists had never seen before. He had often known the thrill of discovery that comes rarely to the botanist of the present time. But he had fallen out with the Friends at the Darby Meeting and they had rewarded his determined lack of orthodoxy by excommunicating him. He seems to have taken this action in a manner that testified strongly for his sincerity. He continued to go to Meeting and to enjoy the fellowship of Friends, declining to let this official disapproval alter his course of life either in following the inner light that had shone in him or in enjoying the helpful association with his fellows. That he remained firm in

his convictions is shown by the inscription engraved by him on a stone block built into the wall of his new house some years later.

"Tis God alone, Almyty Lord,
The Holy one, by me adored.
John Bartram, 1770"

It still witnesses to John Bartram's fundamentally deep religious character and to the steadfastness of his mind. The religious note here sounded appears and reappears in his letters and journals and a real and rugged eloquence breaks forth at times into a sublimity of expression recalling that of the prophets of old.

A reverence and wonder at the mighty works of the Creator seen in some of the wildernesses visited by him find their way into descriptions of things seen and into his explanations of how things came to be. John Bartram was a man of faith and the more he saw the deeper grew that faith.

Not long after he began to plant his garden his fame had begun to spread among those "of curious mind."

Franklin's Junto fellowship begun in 1727 had not included Bartram, but it did include a middle-aged Philadelphia merchant of agreeable personality and inquiring mind, Joseph Breitnall. Franklin describes him as a scrivener but that he had financial dealings with the London cloth merchant, Peter Collinson, seems certain. Like the other men in Junto, Breitnall had a mind busy with more than papers and merchandise. He too was a naturalist and as such a brother under the skin to John Bartram. Peter Collinson in England was a man of wealth doing a business in cloths both at home and in the Colonies. He was also one of the men "of curious mind," and likewise a naturalist. He had some inklings of the rare things to be had in America and pestered his American correspondents to get plants and seeds for him. They did a little, but far too little, for the enthusiastic Collinson. Finally, he took the plain hint from one of his friends who would buy cloths from him but would not be bothered about plants and seeds. So he asks Breitnall, Dr. Samuel Chew and perhaps

other Philadelphians to give him the name of some one who would serve his purpose. Both recommended Bartram and thus began the lifelong connection that soon became not only a business relation but one of close friendship. Collinson himself was a Friend, like Bartram, given to plain and sometimes emphatic statement. In the thirty-eight years during which they exchanged seeds, plants, letters and plain speech, relations were sometimes momentarily disturbed by the great eagerness of Collinson who little appreciated the herculean labors performed by Bartram in getting the desired plants for him and by John's reproaches at his lack of appreciation. And, as the later years came on bringing the crisis of the Revolution, Peter could not sympathize very deeply with the colonies and John regretfully drew back from the mother country. But although Peter could see an excuse for massacres by the Indians in the wrongs they had suffered at the hands of the whites, John in a quite un-Friend-like attitude said that the only remedy was to "bang them a plenty." Again John was unorthodox. But he and Peter never allowed the deeper current of their friendship to be disturbed.

As the interchange of plants, seeds and opinions between Bartram and Collinson became known and fruitful, other connections were made by Bartram with Europeans wishing either to enlarge their collection of rarities, or with men of science seeking knowledge of the New World. Sir Hans Sloane, Royal physician to George II, whose huge collections later became a basis of the British Museum, was one. Dr. Fothergill, a wealthy London physician, and later patron of William Bartram's travels to Florida, was another. Among the correspondents most flattering to Bartram's reputation was Queen Ulrica of Sweden. He was also solicited by the leading naturalists of Europe. The name that has grown with time, that of Linnaeus, the Swedish systematist, is among those who valued Bartram and who received his plants and his letters. The Dutch Gronovius wrote Bartram letters in such curious terms that Bartram begged him to use a language that he could understand.

In his own country he became the botanical "central" carrying on a correspondence with Colden in New York, Dr. John Mitchell and John Clayton in Virginia, Jared Eliot in Connecticut and Dr. Garden in Carolina. Ellis, Philip Miller of the Gardener's Dictionary, James Gordon, Mons. Dalibard of France, Martha Logan, "the fascinating widow" of Charleston and author of the first American book on gardening, Colonel, later General, Henry Bouquet of Fort Duquesne fame, Thomas Lamboll and Henry Laurens are among the well known people of his time with whom he corresponded. He traded ideas often and abundantly at shorter range with Benjamin Franklin.

Dr. Dillenius of the University of Oxford interested Bartram in mosses. John writes to Mark Catesby, the author of the elaborate and gorgeous volumes on "the Natural History of Carolina, Florida and the Bahama Islands"—"Before Dr. Dillenius gave me a hint of it, I took no particular notice of Mosses, but looked upon them as a cow looks at a pair of new barn doors." His interest in mosses eventually received recognition when a beautiful American genus was named *Bartramia* to commemorate his name.

It is hardly to be wondered at, therefore, that the plain unlettered plowman impelled by the consuming loyalty that grew out of the contemplation of the daisy should receive open and flattering recognition from scientific organizations even before the end of his long life. Through the friendly Collinson's influence several of his contributions found their way to the Royal Society in England and were there printed.

When the American colonies, Pennsylvania taking the lead, with Franklin as prime mover, established its own American Philosophical Society, it was to be expected that Bartram, by now recognized as the first American botanist, should be a member. On April 5, 1744, a society was formed with about a dozen constituting members, Bartram being one.

In the remaining minutes allotted to me, I shall discuss briefly the travels of John Bartram. It must be borne in mind that well established and comfortable roads in his time

were to be found mainly near larger centers of population and ran out from these into sparsely settled, remoter regions. These roads frequently amounted to little more than well-marked trails, in many cases following those used by the Indians. When these roads ceased, the traveler was obliged either to continue along less marked Indian trails or to enter the untracked wilderness. To the botanist, the object sought was not primarily a route of travel from one place to another but rather access to regions in which rare or interesting plants might be found. Accordingly, in trying to make clear to friend Peter Collinson some of the problems of the collector, he says that his route led him usually into regions in which travel was difficult and often dangerous. He writes in the same vein to Alexander Catcot in 1742, "thee may suppose I am often exposed to solitary and difficult travelling, beyond our inhabitants, and often under dangerous circumstances, in passing over rivers, climbing over mountains and precipices amongst the rattlesnakes, and often obliged to follow the track or path of wild beasts for my guide through these desolate and gloomy thickets."

A glance at Lewis Evans' map of the Middle Atlantic region in 1749 shows that roads to the northward stopped at the Kittatiny Mountains or clung to the Delaware River. New Jersey being nearby and less rugged was naturally more accessible and was often traversed by our botanist. One road into Delaware led to the Atlantic Coast at Lewes, another to the shore of Chesapeake Bay. Roads to the westward were more adequate because of the considerable settlements in that direction, as Lancaster and York. These parts of the country were easily reached and were probably repeatedly studied. He made several longer trips, however, that deserve a passing mention. On these trips he made brief notes on the character of the landscape, principal kinds of forest trees seen and geological features with special mention when fossil outcrops were noted. He included meetings and doings with the Indians and I believe rarely failed to mention the seeing of a rattlesnake. Sometimes his journal contains amplifications,

explanations of possible causes of phenomena seen. He seems to have sent these journals to his European correspondents, especially to Peter Collinson. In two instances, Peter Collinson got them printed in England, but by far the greater number seem to have remained in manuscript. It is to be hoped that these still exist and that they may sometime be carefully examined by some one competent to judge their value for publication even now two hundred years later.

To follow the always-wandering Bartram can not be attempted at this time. Three of his journeys however had some wider significance and have been rather clearly traced. Some idea of the restless activity of this botanist, who was also running a farm, may be gained from his correspondence.

In 1735, at Collinson's suggestion, he followed the Schuylkill River to its source and in 1737 he finished the preparation of a map of the regions traversed. In 1736 he visited the Rattlesnake Mountains and went into the Jerseys. In 1737 he went to the westward to Conestoga and planned his first longer trip, this time to the southward. He set out in the fall of 1737 apparently going down through Delaware and the Eastern Shore sections of Maryland and Virginia, thence up the James River by way of Williamsburg to the mountains, turning northward through the Shenandoah Valley. On this trip he reports seeing a cave so remarkable that he took the pains to prepare a plan of it. On this expedition he traveled 1,100 miles in five weeks. Travels up the Delaware to Minnesink on the west side of that river on the line between West Jersey and New York, iris-like flowers from Cape May, balsam from firs gathered in the Catskill mountains, and an indefinite journey probably not of great length "along our sea coast" are noted in 1742.

In July 1743 in company with the interpreter to the Indians, Conrad Weiser, he went on one of his most important journeys, this time beyond the Blue Mountains across a region little known, to the Onandago country near the present site of Syracuse, N. Y., where a meeting was to take place between Indians of the Six Nations and representatives of the colony

of Virginia. There had been trouble and some killing and all parties desired peace. John went along in order to make observations on the plants, animals and physical characteristics of this wild inland region. With the help of the early maps of Lewis Evans and William Scull it is possible to follow his journey fairly well.

We may take a minute and follow him a little more closely on this one journey. Leaving Darby on July 3 he crossed the Schuylkill to Philadelphia and, probably taking the Ridge Road, came to the Perkiomen Creek near its junction with the Schuylkill. He spent the night at Marcus Hulin's in Manatony south of the Oley Hills. On the Fourth he crossed the Schuylkill, perhaps near where Pottstown now stands to the west bank instead of following the usual trail on the eastern side to the present site of Reading. He ascended the Flying Hills, south and west of Reading, so called, he remarks, because it was the home of great numbers of wild turkeys that were seen to fly down from thence into the valleys. This brought him to near Reading and the high hills in the neighborhood of Wernersville. He saw the Blue Mountains beyond the Tulpehocken Vale, passed a strikingly large spring, near the Sinking Spring of to-day, and, turning westward along the road that soon ended in the wilderness, reached the vicinity of Womelsdorf, the home of Conrad Weiser, his companion from this point onward. After spending the night at Weiser's, the two crossed Tulpehocken Creek where, according to Evans' map of 1749, the road ended and they set their faces toward the Blue Mountains. They crossed the Little Swatara and spent the night of the fifth at William Parson's plantation six miles from the Blue Mountains. The next day saw them through the first range probably northwest of Rehrersburg in the town of Bethel and showed them two gaps in the second range. They probably crossed this mountain at Pine Grove, passing over the principal branch of the Swatara and traversed intervening swamps, hollows and small ridges, perhaps "St. Anthony's Wilderness," of the maps that time, to the last great ridge. They spent the night on

Laurel Creek, perhaps Deep Creek of present day. One more ridge crossed and they came to Double Eagle, now Spread Eagle Creek, going steadily northward. Here they turned westward and from the top of a high hill, with shells in the rocks, saw the Susquehanna. They spent the night at Mahoney. On the 8th they crossed the creek and went northward along the eastern bank of the Susquehanna that led them to the junction of the West and East Branches of that river to an important Indian town then called Shamokin, later Fort Augusta, now Sunbury. A day was spent in reconnoitering this region, the tenth seeing them again bound northward along the western branch of the Susquehanna to the great westward bend where Muncy Creek joins it. They soon held northward to Lycoming Creek and westward to Burnett's Hills, and, leaving the "Impenetrable Wilderness" with the "Endless Mountains" of the Eaglesmere region still farther to the eastward, reached the watershed separating the waters of the east and west branches of the Susquehanna. Crossing this they turned eastward to Towanda Creek. It was now July 16 and they were on water that flowed northward at Owego on the present state boundary line. It seems probable that here their course led north by the valleys of East Creek and Tioughnioga River past the present site of Cortland, N. Y., perhaps to Tully Lake, then over the Gooseberry Mountains. They made their camp on July 20 near their destination. Indians, who had joined them at Shamokin, like them en route to the council, were sent ahead to the place of rendezvous with wampum and word that they were coming. Next day Table Mountain with its fruits and vegetables was crossed, then water flowed toward Lake Ontario, and the Onondago long house somewhat south of where Syracuse now stands came into view on July 31. To Bartram's great regret the return trip nearly retraced this route, but before he returned Bartram took a side trip to Fort Oswego on Lake Erie while the treaty was making at Onandago.

A brief journal, such as he usually prepared recounting his travels, was sent to his friend Collinson in England who had

it printed wretchedly in 1751. This journal notes hard climbs, dismal vales, glorious far views, the prevailing forest trees, types of soil, doings with the Indians and, wonderfully enough, marine shells in the rocks on high mountains.

Some of the difficulty of corresponding in those times of uncertain travel and of wars in progress on sea and on land is realized when John complains that he prepared and sent three copies of this journal before one reached England. The two earlier copies went in boats picked up by French privateers.

Time forbids more than the briefest mention of other travels. In 1753, with his son, William, now fifteen years old, to keep him company, he ascended the Delaware to the vicinity of Milford or Port Jervis, then across to Goshen in New York and up toward the Hudson to Cadwallader Colden's place west of Newburgh.

In 1760 one learns of a trip to Charleston, S. C., in which he met Mrs. Martha Logan, the aged and vigorous author of the first American book on Gardening.

In 1761, after the English had taken Fort Duquesne and christened the place Pittsburgh, he visited it and received from his lasting friend Colonel Henry Bouquet, the hero of the situation, the first pecans that found their way into the east. With these he greatly aroused the curiosity of his English friends, Collinson and Gordon.

Next year finds him on a long trip that brought him into the interior of South Carolina, to the southwest border of Virginia, to the New River and through the Shenandoah Valley in the direction of home. He saw the famous Natural Bridge, Luray Caverns perhaps, Hot Springs and other wonders that stirred him to a real eloquence. This trip yielded an interesting crop of letters and a journal with maps never printed.

1763 finds him near home visiting Great and Little Egg Harbor but planning a long trip to Florida. England had just assumed charge of this new colony and it was agreed that it needed investigation. Through the intervention of

Peter Collinson, John Bartram was appointed Botanist to the King in April, 1765, with a modest money allowance and authority to proceed. By September 19, he and William were safely on their way as far as Carolina. Georgia and Florida were visited and a journal of his travels to the head of the St. John's River was published in several editions under the chaperonage of Dr. William Stork, a man greatly interested in the first land boom experienced by that since much-boomed state.

This was Bartram's last long trip. He was sixty-six years old and was beginning to feel the weight of years. He had suffered much hardship and the help of his boy John as well as that of the rather difficult but talented William was gladly accepted.

As the Revolution came on, the country was much disturbed and John complained bitterly and often of the dangers from savages let loose. So he traveled less, probably giving more time to his garden that had now taken on somewhat the character of a nursery for the production of plants for the many customers at home and abroad. His garden, speaking to him of hardship and not rarely of peril, of triumphant discovery, and of peace, was to him far more than his fertile farm acres that quietly and beneficently had yielded their prosy increase through the years.

As the struggle between the mother country and the colonies wore on, war came to his very garden, to his very door. It is said that Howe's progress up the river toward Philadelphia troubled him greatly and as Howe entered, our old botanist started on his last long journey.

Much might be said on this occasion about the life of Bartram. But, when it is all summed up, we find that we have had to do with a simple-minded but far-seeing, beauty-loving apostle of Nature—all his life a zealous convert with a mission humbly but greatly conceived and executed with all the powers that he possessed. He wrote to Collinson—"My head runs all upon the works of God, in Nature. It is through that telescope I see God in his glory."

The Work of William, Son of John Bartram

WITMER STONE

When two men of the same family have achieved distinction in the same or kindred fields of research, it becomes desirable to clearly differentiate their accomplishments, as well as the time and extent of their activities.

So, today, it seems proper for us to distinguish the services to science of John Bartram, the father, and William Bartram, the son, and it is my privilege to speak briefly of the latter.

William Bartram, the third son of John Bartram and Ann Mendenhall (his second wife), was born at the Bartram home on the Schuylkill on February 9, 1739, when his father was in his fortieth year. The son at an early age showed a strong tendency to inherit his father's deep interest in natural history and the latter, determined that the boy should have every possible assistance, encouraged him in a natural talent for drawing and saw to it that he was thoroughly grounded in French and Latin.

In writing to his close friend Peter Collinson, of England, when William was about fifteen years of age, John Bartram says: "I design to set Billy to draw all our turtles, as he has time, which is only on Seventh Day afternoons and on First Day mornings for he is constantly kept at school."

Later the elder Bartram fearing, like many a parent of a budding naturalist in later years, that natural history and drawing were neither of them a source of livelihood, apprenticed young William to a Philadelphia merchant, and after serving out his time he was established as a trader at Cape Fear, North Carolina.

This enterprise, however, was not successful, and John Bartram who, in 1765, was about to undertake his exploration of the Floridas for the King of England, decided to take his son with him. This expedition was a revelation to William

and evidently definitely determined his future career as a naturalist.

After his return home, Peter Collinson, to whom samples of his drawings had been sent, became much interested in him and obtained orders for natural history drawings from the Duchess of Bedford, Dr. Fothergill, and other patrons of science in England. This led in 1773, under the patronage of Fothergill, to William Bartram's explorations of portions of Florida, Georgia and the Carolinas; these covered some five years or until about the time of John Bartram's death. After this William made his home at the Bartram house with his brother John, who had inherited the property, for William never married. Here he lived in the midst of the now famous Garden, absorbed in his work, happy in his congenial surroundings, and removed from the bustle of the neighboring city.

He was offered a professorship of botany in the University of Pennsylvania but declined on account of poor health. In 1791 he published his famous "Travels," the result of his explorations in the South, and one of the most fascinating of the earlier treatises on American natural history. Its perusal shows that William Bartram, while primarily following his father's footsteps in botanical research, was equally versed in the science of zoology, while the results of his early schooling are evident in his literary style and expression. In this volume he presented accounts of the birds that he had observed and, what is more, a complete list of the birds known to him as inhabiting the country from Pennsylvania to Florida and west to the mountains. This was a landmark in the progress of American ornithology next in importance to the work of Catesby and the first ornithological contribution, worthy of the name, written by a native American. Unfortunately Bartram neither conformed to the nomenclature of Linnaeus' "Systema Naturae" in naming his birds, nor did he provide descriptions; consequently, although we can recognize the many species that are here mentioned for the first time, we cannot use his polynomial names and thus bestow credit where credit is due.

But William Bartram's claim to consideration as one of the pillars of American ornithology does not rest wholly upon his "Travels" or his other scattered papers. It was his profound knowledge and the assistance that it enabled him to offers to others that have done more for ornithology and for other branches of zoological science than his own publications, and most generously and cheerfully did he share his store with those who came to him for aid.

His great-nephew, Thomas Say, came to him as a boy of twelve, from his father's house on the cliffs overlooking Gray's Ferry, to show him such unusual specimens as he had gathered on his rambles about the country, and doubtless it was largely due to William Bartram's help and encouragement that Say developed into the "father of American entomology" and of conchology as well. To him also came Dr. Benjamin S. Barton, the young professor of Botany and Natural History of the University of Pennsylvania; while up at Milestown north of Philadelphia lived a young Scotch schoolmaster, Alexander Wilson, who soon after took the school at Gray's Ferry and made the acquaintance of Bartram, under whose guidance and encouragement he was to become one of the most famous ornithologists that our country has ever produced.

In the development of these men and others, much is to be attributed to the influence of William Bartram, and when we form our judgment of his worth we must look, as in the case of other modest men, beyond the work that he accomplished himself, and consider also that which he inspired in others.

In the seclusion of his garden he, like other men of the time, kept a diary, but his journal was devoted to a faithful record of the daily phases of nature, and this little volume with its time-stained pages and faded writing is still preserved in our Academy library. Herein he records the activities of the "MockBird" in the garden, and the dates of arrival year after year of the Blackbird, the "Pewit," and other harbingers of spring. Alas! the "MockBird" now rarely comes as far north as Philadelphia and so closely have the railroads and oil works encroached upon the historic garden that the wild birds

do not visit it as frequently or in such numbers as they did in Bartram's day. But things are not all changed: one evening the diary tells us of the presence of the "Little Horned Owls" in the bushes before the door and on one of my walks through the shaded paths of the Garden I came suddenly upon a pair of these same "Little Horned Owls," in other words Screech Owls, hiding in the ancient box bushes. Were they the lineal descendants of those that William Bartram heard hooting more than a hundred years ago? We cannot say, but it is pleasant to think that they were.

In the retirement of the beautiful garden on the banks of the lower Schuylkill the venerable naturalist lived his peaceful life until the morning of July 22, 1823, when he was writing the description of a plant in the little study used by him and by his father before him. He arose from his desk to take his customary stroll through the garden and without warning the curtain descended upon his useful and eventful career. Seldom has a son carried on the life work of his father with more devotion, seldom has a naturalist advanced the cause of science with such unselfish interest, or lived to enjoy the success of so many who profited by his generous aid as did William, son of John Bartram.

Significance of John Bartram's Work to Botanical and Horticultural Knowledge

JOHN HENDLEY BARNHART

We are here to honor the memory of a plain American farmer, who was living in this vicinity two hundred years ago. John Bartram had none of the so-called educational "advantages" that beckon to the young man of to-day, yet he could not be accurately described as an uneducated man. He grasped every opportunity that he could discover to educate himself, and in this way he acquired stores of information and much culture. This was also true, however, of many others in the colony of Pennsylvania, who are now remembered only by those concerned with antiquarian research.

He seems to have been a kindly soul who, whatever changes occurred in his religious belief, always adhered firmly to the rules of conduct inculcated by his early training as a member of the Society of Friends. Yet as much could probably have been said of many of his neighbors, long forgotten. It is, therefore, eminently fitting that we should ask ourselves what there was about this man to command our attention and justify our homage, more than a hundred and fifty years after his death.

Do I hear some one say, "He founded the first botanic garden in the American colonies"? To be sure, he did; at least, the first of which we possess convincing evidence. The establishment of that garden, and the building in it of the house with its inscribed date, 1731, has furnished the excuse for our celebration at this particular time. But, after all, the garden was not his chief benefaction to humanity. It was not what we would think of as a botanic garden to-day. It was not intended for the enjoyment or the education of the public, although it was always at the service of the occasional visitor who was able to enjoy or study it intelligently. It was Bartram's own garden, and his neighbors or at least some of them

probably had gardens of their own. What made his worthy to be called a *botanic* garden was the fact that it was developed under the eye of a botanist, who sought to bring to his side, for companionship throughout the year, native plants that otherwise he might be obliged to travel far to find, and then see only momentarily, at some single stage of their development. Later were added many exotics, sent by his foreign correspondents, but the glory of his garden was its abundance of interesting native plants. Others might have showier gardens, with much less variety, but there was no plant in Bartram's garden that did not possess the power to warm the owner's heart.

After all, Bartram's garden was not his greatest field of scientific influence. It was temporary, and has vanished, leaving merely a trace. His really important work, begun early, and continued regularly and faithfully for more than forty years, was his tireless search among the wilds of Atlantic North America for plants, especially woody ones, hardy in this climate, that might be desirable additions to the gardens of the Old World. And many are the American shrubs and trees, never before cultivated in England, or lost to cultivation, now commonly found there, in most cases directly descended by seeding, or actually continued by cuttings, from the stock originally sent by Bartram. Year after year he searched these out, and sent shipments of seeds and young plants across the ocean, a far longer and more hazardous voyage for all living things in those days than now. Sometimes they suffered from too much moisture, occasionally from too little; sometimes from too much heat, more often from too much cold, for the shipments were usually made in the winter months, when the living plants were most completely dormant; the ravages of rats were frequently serious. Many were worthless upon their arrival at their destination; many others survived, and sometimes if a shipment one season was a failure, another the following year would succeed.

We shall never know how many plants were introduced in this way by Bartram into the gardens of England. His chief

agent there was the famous Quaker botanist, Peter Collinson, through whom Bartram secured a belated appointment as King's Botanist. This was not an empty honor, but carried with it a salary sufficient to aid greatly in defraying the expenses of his botanical expedition to Florida. Collinson is known to have introduced many American plants, but the source of these is not known in a large proportion of cases, and Bartram was not his only correspondent in America.

We must not make the mistake of supposing that Bartram was the first to send American plants to Europe, or even that he was a pioneer in that field. Even in the days of discovery and exploration, before the establishment of any permanent settlements, a few plants from the New World had found their way to the Old; but, curiously enough, most of these were tropical species, that would not endure the climatic conditions in Europe outside of the Mediterranean region. Before the year 1620, only a very few plants of temperate North America, such as the sunflower, the potato, and the tobacco, had found their way into European gardens.

Some years ago a famous German botanist, the late Gregor Kraus, published a brief history of the introduction of plants into European botanic gardens. This was based very largely upon careful study of lists of the plants cultivated in various gardens, published by them from time to time. Kraus shows that until 1560 nearly all the plants in European gardens were natives of central Europe. From 1560 to 1620 there was a great influx of plants whose native home was east of the Mediterranean, but there were still only a very few from America. From 1620 to the beginning of the Revolution there was a more or less steady flow of plants, especially woody ones, from eastern North America, overshadowed during a part of that period by the abundance of curious plants, particularly bulbous ones, introduced from the Cape of Good Hope. Australian plants came into cultivation in great numbers in Europe from 1772 to 1805, while during the nineteenth century all parts of the world contributed their quota to the lists of plants in cultivation.

There was a reason why woody plants and other perennials were favored for introduction from the wild regions of one continent to the gardens of another. Annuals could only be sent as seeds, and if, as was often if not usually the case, they refused to produce seeds in their new environment, they could only be maintained in gardens by annual shipments. Perennials, on the other hand, could be sent as seeds, or, if they could survive the long ocean voyage, as living plants, and these, when once established, would maintain themselves indefinitely, even if they never produced seeds in their new home.

It is but natural that most of the plants introduced from the British colonies of our Atlantic seaboard into European cultivation went first to England, and found their way thence to the gardens of the Continent. It is therefore to English records of plant introductions that we must look for evidence relating to European cultivation of our native plants. And such records are not lacking, though not always as definite as we might wish. We may know that a certain species was introduced into cultivation in a certain year, or before a certain year; we may even know that a certain Englishman introduced a plant into cultivation, without knowing from what American correspondent he received his supply.

Of the plants constituting the flora of the eastern United States and Canada, perhaps eight thousand of them, barely a half dozen were in cultivation in England before the year 1600. In the next fifty years the number had increased to about fifty, and before the end of the century to about a hundred and fifty. From 1701 to 1734, when Bartram sent his first known shipment, the number had doubled, reaching about 300. From 1736 to the time when the Revolutionary War interrupted the traffic, the number had again more than doubled. This period covered all of John Bartram's active work, and about three hundred and twenty plants were introduced to England from this country during these forty years. Collinson is credited in English records with the introduction of forty; most, but not all, of these doubtless came from

Bartram. A far greater number, nearly two hundred, are credited to Philip Miller, at that time the most famous of British horticulturists, who rarely if ever named the original collector of his new introductions from North America. There was no direct correspondence between Bartram and Miller until 1755; but twenty years earlier, almost at the beginning of his correspondence with Bartram, Collinson remarked "anything in my power, or my friend Miller's, will be always at thy service," and from 1736 Miller was a regular contributor to the financial support of Bartram's enterprises, and regularly received from Collinson his share of each shipment. It is but natural to suppose, therefore, that a large proportion of the plants credited to Miller as introducer consisted of collections by Bartram, and if this is true he was probably responsible for the first appearance in the gardens of England of between one hundred and fifty and two hundred of our plants.

Besides these novelties, however, Bartram sent each year large supplies of various plants previously in cultivation only in limited quantities; and he thus enabled British growers to secure readily many kinds of shrubs and trees that had up to that time been considerd rare. Indeed, his influence in increasing the *abundance* of American plants in cultivation might be regarded as of importance equal to that of his introduction of novelties.

And now let us consider in more detail some of the American plants known, or supposed with good reason, to have been introduced into general cultivation by John Bartram. One of the earliest was the plant named for the friend to whom he sent it, *Collinsonia.* Strangely enough, there seems to have been no mention of this in the correspondence between Bartram and Collinson, at the time when it was first sent over. But, four or five years later, on the second of September, 1739, Collinson wrote in a letter to Bartram of "what our botanists have dubbed *Collinsonia,* but I think it should rather be *Bartramia;* for I had it in the very first seeds thee sent me."

Another of the novelties sent to England by Bartram in 1735 was the skunk-cabbage. This plant, in spite of its unpleasant odor, must have been a great curiosity there, for there is nothing resembling it in the wild flora of Great Britain. Collinson was quite enthusiastic about it; he speaks of its flowers as "very beautiful," and its leaves are certainly not unornamental later in the season.

As early as 1735 or 1736, Bartram had sent a number of plants so familiar here that it seems strange indeed that they were not previously known in English gardens: the sugar maple, the witch-hazel, the climbing bittersweet (*Celastrus*), the southern white cedar (*Chamaecyparis*), the mayflower (*Epigaea*), the rose bay (*Rhododendron maximum*), the wild honeysuckle (*Azalea nudiflora*), the swamp honeysuckle (*Azalea viscosa*), and the cucumber-tree (*Magnolia acuminata*).

Other plants introduced to English gardens at that time by Collinson, and presumably sent by Bartram, were: the mountain laurel (*Kalmia latifolia*), the buttonbush (*Cephalanthus*), at least three species of arrow-wood (*Viburnum*), the false alder (*Ilex verticillata*), the steeple-bush (*Spiraea tomentosa*), the sand-myrtle (*Dendrium buxifolium*), the white osier (*Leucothoe racemosa*), the stagger-bush (*Pieris mariana*), the river-birch (*Betula nigra*), the hemlock (*Tsuga*).

A few years later, Bartram sent to Collinson roots of the American ginseng, apparently in considerable quantity. Collinson was much interested in this plant because of its commercial possibilities; he planted some of the roots, but does not appear to have distributed them among his friends. He sent a supply of them to China, by a friend who was on the point of starting to that country. He did not expect to hear how the American ginseng was received by the Chinese until his friend's return to England, three years later, and he does not seem to have reported the result of his venture to Bartram, but it is not unlikely that this experiment by Collinson marks the beginning of the profitable trade in this plant that has continued to the present time. It appears that the French export of ginseng from Canada to China may have begun five

or ten years earlier, at a time when it was not yet known that the plant occurred in the British colonies, and this may have suggested the enterprise to Collinson.

Another plant for whose introduction Bartram was certainly responsible was the shooting-star (*Dodecatheon*), for he is known to have collected it, and it was very rare in the regions explored botanically up to that time. It had been sent to England by Banister, and was growing in Bishop Compton's garden as early as 1709, but had died out long before Bartram sent seeds of it, about 1740. Long afterward, in 1763, in a letter to Collinson, Bartram referred to this plant when he said "The first time I crossed the Shenandoah, I saw one or two plants, or rather stalk and seed, of the *Meadia,* on its bank. I jumped off, got the seed and brought it home, sent part to thee, and part I sowed myself; both which succeeded, and if I had not gone to that spot, perhaps it had been wholly lost to the world. John Clayton asked me where I found it. I described the very spot to him, but neither he nor any person from him could find it after."

After the first few years, 1735 to 1745, the number of American plants whose introduction is credited to Collinson in the English records gradually decreases, but those credited to Miller increase in number by leaps and bounds. Although most of them came from Bartram, we are not in a position to state with confidence just which ones were from this source. Even if we were certain in each case, this would not be a suitable occasion for us to catalogue them, for the list would comprise the names of many dozens of our well-known native species, and would, I am sure, merely weary you. It is sufficient here to place on record the fact of their numbers.

One plant discovered by John Bartram, but not sent to England until several years after his death, deserves special mention. We have seen that, in the case of the shooting-star, he feared that if he had failed to collect it, it might never have been found again. This fear was groundless, for it is not now regarded as such a rare plant. But he did find one

plant, and a very showy one, of great horticultural value and of much botanical interest, that might otherwise have remained forever unknown, and if he had merely described it, without actually bringing it into cultivation, where it still persists, might have been regarded as the creation of a disordered brain. It was in 1760, or possibly, as sometimes has been claimed, in 1765, that Bartram, accompanied by his son William, was at a crossing on the Altamaha River, in Georgia, when he observed a strikingly handsome flowering shrub, resembling closely in some ways one previously known to grow in the same region, *Gordonia lasianthus,* but differing in important details. It was then in full bloom, with no ripe seeds, and he seems to have made no attempt to get cuttings; but the beautiful shrub was not forgotten, and upon a subsequent visit to the same locality, William Bartram secured seeds and brought them home to his father, then nearing the end of his life. The plants raised from these seeds flourished, themselves produced seeds, and the *Franklinia alatamaha,* as it was named, in honor of John Bartram's lifelong friend, Benjamin Franklin, and the locality where it was found, on the banks of the Altamaha (then called the Alatamaha), has never been lost to cultivation, although repeated search has revealed no wild specimen for more than a century. In recent years special efforts have been made by several persons to increase the number of specimens of this shrub, so that it may be in no danger of extinction, and their efforts have been crowned with success.

With all available time occupied in the gathering of seeds and perennial flowering plants, Bartram paid very little attention to the flowerless ones. This was not due to any lack of interest, for he was a naturalist in the broadest sense of the word, but he lacked facilities for their study, and they were poorly understood at that time even by specialists in the Old World. In the earlier part of his career, he was in correspondence with Dillenius, of Oxford, until the death of that botanist in 1747. To oblige Dillenius, he collected and transmitted

to him at various times specimens of American mosses, and in gratitude the Oxford professor named for him a genus of mosses, *Bartramia*. But Bartram himself never knew much about mosses; in one of his letters to Dillenius he mentions the flowering moss so common in our southern States in such a way as to show that he supposed it was a true moss. Bartram lived, however, for more than thirty years after that letter was written, and it is not unlikely that he discovered the error.

Until now, we have been considering primarily John Bartram's influence upon horticulture; although, of course, the cultivation of American plants in gardens where they could be studied at first hand by European botanists could not fail to be an aid to technical botany. But, from the very beginnings of modern plant-study, dried material has been essential to progress. The importance of herbarium specimens is threefold: it renders available for study plants of kinds that never have been and in some instances can not be cultivated; it preserves leaves, flowers, and fruits so that they can be placed side by side and compared, although the kinds so compared might never produce flowers and fruits at the same season; and it preserves the actual specimens studied by one generation of botanists to interpret their work to succeeding generations. Consequently, herbaria are nearly as old as scientific botany itself, and nearly all North American plants were known to the botanists of Europe in the form of herbarium specimens years before a living individual had been seen by them.

Quite early in his career as a collector, Bartram seems to have prepared roughly dried specimens, merely as samples of the kinds of plants that he might be able to supply alive; but Collinson soon instructed him how to collect good herbarium specimens, and urged him, wherever he went, to be sure to get dried material of every interesting plant he saw, whether he was able to get living material or not. As a result of this advice, there are now in the herbarium of the Natural History Museum in London, a branch of the British Museum, many

specimens collected by John Bartram, often accompanied by interesting notes.

We must not think of Bartram as a mere plant collector. He did not publish very much: a small book containing his journal while on a trip into the wilderness of western New York in 1743; an American edition of Short's "Medicina britannica," with his notes upon certain American medicinal plants; the journal of his Florida trip of 1765–1766, in Stork's "Description of East-Florida"; and eight papers (none, strangely enough, botanical) in the Philosophical Transactions of the Royal Society of London. Botany owes a great debt of gratitude to Dr. William Darlington for his volume "Memorials of John Bartram and Humphrey Marshall," published in 1849. This contains in printed form two of Bartram's manuscripts, an account of a journey to the Catskill Mountains and a record of troublesome plants in Pennsylvania, and many of his letters; but the Bartram correspondence consists chiefly of letters written to him rather than those written by him. It appears from the correspondence that Bartram was in the habit of writing his journals, in the case of all his longer trips, and sending them to England, to his friend Collinson, not always, if ever, keeping a copy for himself. If these could be found, they would surely make interesting reading, and be well worthy of publication.

In Bartram's day, the sexuality of plants was a well-known fact, but was little understood, even by Linnaeus, who based his entire artificial system of classification upon it. Its mechanism was in dispute; even the function of pollen was in doubt. One of the most valuable contributions to the discussion was a dissertation by the distinguished Pennsylvanian, James Logan, published in English in the Philosophical Transactions in 1736, and reprinted later in English, in German, and in Latin. Logan was a friend of Bartram, and encouraged, if indeed he did not originally instigate, his botanical work, and after Logan had experimented with maize, Bartram repeated his experiments with the red campion, *Lychnis dioica*. This

work of Bartram's is referred to by Darlington as if well known, but I can not learn that it was ever printed; probably it was referred to in the writings of some contemporary author.

This work on pollination is mentioned, however, as is also another related line of work, showing that John Bartram was a very early student of plant hybridization, in a letter written by him in 1739 to Colonel William Byrd, of Virginia, whose acquaintance he had formed during his travels. I feel that I can do no better than to close these remarks with a quotation of a few paragraphs from that letter:

"I have this spring made several microscopical observations upon the male and female parts in vegetables, to oblige some ingenious botanists in Leyden, who requested that favour of me, which I hope I have performed to their satisfaction, and as a mechanical demonstration of the certainty of this hypothesis, of the different sex, in all plants that have come under my notice. . . . I have made several successful experiments, of joining several species of the same genus, whereby I have obtained curious mixed colours in flowers, never known before; but this requires an accurate observation and judgment, to know the precise time. . . . I hope by these practical observations to open a gate into a very large field of experimental knowledge, which, if judiciously improved, may be a considerable addition to the beauty of the florist's garden." How unfortunate it is that Bartram did not place upon record, on the printed page, the results of these experiments, and thus immortalize himself as the first experimental plant-breeder.

John Bartram's First Interest in Botany

JOHN H. BARNHART

Hector St. John (Michel Guillaume Jean de Crevecoeur), a native of France, but long resident in America, published in 1782 a book entitled "Letters from an American farmer," in which he incorporated a letter, purporting to have been written by a Russian, describing a visit to Bartram at St. John's request. The following quotations are Bartram's own words, as reported by the Russian, who may or may not have been wholly fictitious:

"I scarcely know how to trace my steps in the botanical career; they appear to me, now, like unto a dream." "One day I was very busy in holding my plough (for thee seest that I am but a ploughman), and being weary I ran under the shade of a tree to repose myself. I cast my eyes on a daisy, I plucked it mechanically, and viewed it with more curiosity than common country farmers are wont to do; and observed therein very many distinct parts, some perpendicular—some horizontal. What a shame, said my mind, or something that inspired my mind, that thee shouldst have employed so many years in tilling the earth and destroying so many flowers and plants, without being acquainted with their structures and their uses! This seeming inspiration suddenly awakened my curiosity, for these were not thoughts to which I had been accustomed. I returned to my team, but this new desire did not quit my mind." "I thought about it continually, at supper, in bed, and wherever I went. At last I could not resist the impulse; for on the fourth day of the following week, I hired a man to plough for me, and went to Philadelphia. Though I knew not what book to call for, I ingenuously told the bookseller my errand, who provided me with such as he thought best, and a Latin grammar beside." "Then I began to botanize all over my farm."

This account has been reprinted at various times, with many alterations and additions, of which perhaps the most important is that placing the date of this event as "about 1725." If the story is true, the approximate date assigned to the occurrence is doubtless correct. With the Russian's record of Bartram's own statement may be contrasted William Bartram's account of his father, published in 1804 (Phila. Med. & Phys. Jour 1[1]: 115–124), in which he says: "He seemed to have been designed for the study and contemplation of Nature, and the culture of philosophy. Although he was bred a farmer, or husbandman, as a means of procuring a subsistence, he pursued his avocations as a philosopher, being ever attentive to the works and operations of Nature. While engaged in ploughing his fields, and mowing his meadows, his inquisitive eye and mind were frequently exercised in the contemplation of vegetables; the beauty and harmony displayed in their mechanism: the admirable order of system, which the great Author of the universe has established throughout their various tribes, and the equally wonderful powers of their generation, the progress of their growth, and the various stages of their maturity and perfection." It will be observed that this account, although lacking detail, does not directly contradict anything in the Russian's story; William Bartram may have seen St. John's book, and credited the account given therein, or he may have heard the same story from his father's lips, but chose to use it indirectly rather than repeat it in full.

The story of Bartram and the daisy has been questioned by skeptics in recent years, and one of the grounds for their skepticism is their claim that the "daisy" or white-weed was not introduced into America until the Revolutionary War, when brought in hay imported by the British army. This claim is ridiculous. The whiteweed may have been re-introduced or spread more widely in areas where it was not before noticeable, by the British army, but it was a common weed in America long before the Revolution. Bartram, in 1758, sent

to an English correspondent an account of the weeds then troublesome in Pennsylvania, and this was printed in the "Memorials of Bartram and Marshall" (383–388). The fourth weed mentioned (of ten from Europe) is described in these words:

"*Leucanthemum* is a very destructive weed, in meadow and pasture grounds, choking the grass and taking full possession of the ground, so that the fields will look as white as if covered with snow; but the hoe and plough will destroy this weed."

Whatever the stimulus that finally decided the botanical trend of Bartram's career, we have on record his own statement, in a letter to Collinson, May 1st, 1764: "I had always, since ten years old, a great inclination to plants, and knew all that I once observed by sight, though not their proper names, having no person, nor books, to instruct me."

Restoration of Plants in Bartram's Garden by the Fairmount Park Commission of Philadelphia

SAMUEL N. BAXTER

Plant lovers, amateur and professional, always find much of interest in Bartram's Garden.

Prior to the Fairmount Park Commission's assuming custody in 1923 the garden had been allowed to deteriorate and many plants of Bartram's time disappeared, there remaining 82 varieties of trees and shrubs in 47 genera. As against this, there were 129 different plants in 69 genera, as recorded by Thomas Meehan[1] in 1853, thus showing a disappearance of 47 kinds of plants in recent years and an unknown greater number since the days of Bartram. Incidentally, it was Mr. Meehan, a scientific nurseryman, who as a member of City Councils from 1883 to 1897, brought about the purchase of the Garden by the city in 1891 and became known as the "Father of City Parks."

In the restoration of the Garden the policy has been to confine all new plantings to those known to have existed there in Bartram's time. Many of these plants are no longer grown by nurserymen, having been superseded by more desirable recent introductions and so locating them has been difficult. Notwithstanding this, however, the number has been increased and there are now 211 different kinds of trees and shrubs or more than twice the number existing when the Commission assumed control of the Garden. The number of genera has also been increased from 47 to 120.

Some of the more notable plants restored are the Allegheny barberry (*Berberis canadensis*), canoe and gray birch, crossvine (*Bignonia capreolata*), chinquapin chestnut, white cedar

[1] Information gleaned from Meehan's "American Handbook of Ornamental Trees," a work dedicated "to the memory of John Bartram, the Patriarch of American Arboriculture." Mr. Meehan was gardener at Bartram's Garden when it was owned by Andrew M. Eastwick.

(*Chamaecyparis thyoides*), American hazelnut (*Corylus americana*), beaked hazelnut (*Corylus rostrata*), inkberry and other species of *Ilex,* sourgum, golden chain (*Cytisus laburnum*), persimmon, Russian olive, English walnut, *Magnolia grandiflora, cordata, glauca* and *macrophylla,* species of oaks, Carolina buckthorn, species of Azaleas, Rhododendrons, hawthorns and laurel, sweetfern (*Comptonia*), oak-leaved and silver-leaved Hydrangeas, sweetspire (*Itea*), southern wax-myrtle, hophornbeam (*Ostrya*), Grecian silkvine (*Periploca graeca*), flowering currant, American and European mountain ash, bladdernut, *Stewartia,* yellowroot, prickly ash, silktree (*Albizzia julibrissin*), Kalm's Hypericum, sweetpepper (*Clethra*), sorrel tree (*Oxydendrum*) and *Cyrilla.*

In addition to plants furnished by the Park Commission's nurseries, donations have been made by the John Bartram Association, the Pennsylvania Horticultural Society, the Garden Clubs, the Civic Club, local and out-of-town nurserymen. The most distant acquisition has been that of three Christ-thorn (*Paliurus spina-christi*) plants, imported from England under a special permit from the Government in 1929. This is said to be the plant from which the crown of thorns was made when Christ was crucified. It appeared in Bartram's list of plants but could not be procured in this country and a permit to import it was granted by the United States Department of Agriculture.

Although the original site of Bartram's Garden, immediately around his homestead, has been confined to plants of his time, a plot near same on the north side of the railroad is being developed as a botanical garden where plant lovers and school children may come and study plants, grouped according to their family relationship. Not being confined to plants of Bartram's time, the planting here of 307 different varieties exceed by one-third those in Bartram's original garden.

In this botanical garden one may see such notable plants as a variegated-leaved Hydrangea, many unusual varieties of barberry, Siberian pea, Chinese hackberry, four species of

the sweet-pepper-bush, and nineteen species of *Cotoneaster,* a shrub becoming popular for rock gardens. Also, there are 30 different kinds of hawthorns, several forms of bush-honeysuckles, noted for their ornamental berries, many flowering crab-apples, Amur cork-tree and several kinds of pines which tolerate the smoky atmosphere although it has been fatal to other evergreens planted. A sumac from Java, pink-flowered locust, tall growing false-Spiraeas (*Sorbaria*), Pekin lilac, ten different Viburnums and a *Zelkova* tree are other notable plants. Any visitors from California will note the resemblance of foliage to their pepper tree of a prickly ash (*Zanthoxylum schinifolium*) introduced from Japan and rare in cultivation.

And so, whether the plant lover wishes to browse in this little botanical garden, which Bartram would appreciate were he alive, or stroll through the original garden among plants of Bartram's time, a visit to Bartram's Garden is always of interest. And if the visitor is informed on the history he can visualize the scenes of 1731 when John Bartram, trowel in hand, was building his home; as how, attracted by a daisy he gave up the plow to delve into botany and become the King's botanist in the Colonies. The home-site still commands a vista of the Schuylkill River but instead of sailing vessels and pleasing landscapes, the atmosphere is charged with acid fumes from surrounding manufacturing plants and the river's edge is laden with oil-soaked débris, which, fortunately, will probably soon be eliminated by the construction of a sea wall.

Notwithstanding these adverse conditions, the Fairmount Park Commission has greatly improved the historical botanical spot and even the plants seem to make a special effort to flourish for the sake of John Bartram.

A. Plants at Bartram's Garden adjacent to house and within the boundary of the hedge, which is considered the area of Bartram's original garden. The restoration of the plants is confined to those known to have been there in the early days of the Garden.

*—Indicates plants existing when the Fairmount Park Commission assumed control in 1923.

Abies balsamea ..... Balsam Fir
" *pectinata* ..... Silver Fir
**Acer negundo* ..... Boxelder
* " *platanoides* ..... Norway Maple
* " *pseudo-platanus* ..... Sycamore Maple
* " *rubrum* ..... Red Maple
* " *saccharinum* ..... Silver Maple
* " *saccharum* ..... Sugar Maple
Aesculus glabra ..... Ohio Buckeye
" *hippocastanum* ..... European Horsechestnut
* " *octandra* ..... Yellow Buckeye
* " *parviflora* ..... Bottlebrush Buckeye
* " *rubicunda* ..... Red Horsechestnut
**Ailanthus glandulosa* ..... Tree of Heaven
Albizzia julibrissin ..... Silk Tree
Amelanchier canadensis ..... Downy Shadblow
" *vulgaris* ..... European Shadblow
Amorpha fruticosa ..... Indigo Bush
**Aralia spinosa* ..... Devil's Walkingstick
Aristolochia sipho ..... Dutchmans-Pipe
Aronia arbutifolia ..... Red Chokeberry
**Asimina triloba* ..... Papaw
Azalea arborescens ..... Sweet Azalea
" *calendulacea* ..... Flame Azalea
" *nudiflora* ..... Pinxterbloom
" *rosea* ..... Downy Pinxterbloom
" *viscosa* ..... Swamp Azalea
Baccharis halimifolia ..... Groundsel Bush
Benzoin aestivale ..... Spice Bush
Berberis canadensis ..... Allegheny Barberry
" *japonica* ..... Hakodate Barberry
**Betula lenta* ..... Sweet Birch
* " *lutea* ..... Yellow Birch
* " *nigra* ..... River "
" *papyrifera* ..... Canoe "
" *populifolia* ..... Gray "
Bignonia capreolata ..... Crossvine
* " *radicans* ..... Trumpet-creeper
**Broussonetia papyrifera* ..... Paper Mulberry
**Buxus sempervirens* ..... Box
* " " *angustifolia* ..... Willow Box
* " " *marginata* ..... Goldedge Box
* " " *suffruticosa* ..... True Dwarf Box
* " *variegata* ..... Variegated Box
**Carpinus* ..... Hornbeam
* " *caroliniana* ..... American Hornbeam
**Castanea dentata* ..... American Chestnut
" *pumila* ..... Chinquapin Chestnut
**Catalpa bignonioides* ..... Common Catalpa
* " *speciosa* ..... Western "
**Celtis occidentalis* ..... Hackberry
**Cercis canadensis* ..... American Redbud

**Chamaecyparis pisifera plumosa*	Plume Retinospora
* " " *squarrosa*	Moss Retinospora
" *thyoides*	White Cedar
**Chionanthus virginica*	White Fringetree
**Cladrastis lutea*	Yellow-wood
Clematis virginiana	Virgins-Bower
Clethra alnifolia	Summer Sweet
Comptonia asplenifolia	Sweetfern
Cornus alba	Tatarian Dogwood
* " *florida*	Flowering Dogwood
* " *mas*	Cornelian Cherry
" *paniculata*	Gray Dogwood
" *stolonifera lutea*	Golden Twig Dogwood
Corylus americana	American Hazelnut
" *rostrata*	Beaked "
Crataegus coccinea	Thicket Hawthorn
" *crus-galli*	Cockspur "
**Cydonia japonica*	Flowering Quince
Cyrilla racemiflora	Cyrilla
Cytisus laburnum	Golden Chain
Deutzia crenata	Fuzzy Deutzia
Diervilla trifida	Dwarf Bush-Honeysuckle
**Diospyros virginiana*	Common Persimmon
Dirca palustris	Leatherwood
Elaeagnus angustifolia	Russian Olive
**Euonymus europaeus*	European Burningbush
**Fagus americana*	American Beech
**Franklinia alatamaha*	Franklin Tree
**Fraxinus americana*	White Ash
**Ginkgo biloba*	Maidenhair-tree
**Gleditsia inermis*	Thornless Honeylocust
* " *triacanthos*	Common "
**Gymnocladus dioica*	Kentucky Coffee-tree
**Halesia diptera*	Two-wing Silverbell
* " *tetraptera*	Great "
**Hamamelis virginiana*	Common Witchhazel
**Hedera helix*	English Ivy
**Hibiscus syriacus*	Shrub Althea
**Hicoria cordiformis*	Bitternut
* " *laciniosa*	Shellbark Hickory
Hippophae rhamnoides	Common Sea-Buckthorn
Hydrangea paniculata	Panicle Hydrangea
* " *quercifolia*	Oakleaf "
" *radiata*	Silverleaf "
Hypericum kalmianum	Kalm Hypericum
Ilex dahoon	Dahoon
" *glabra*	Inkberry
" *monticola*	Mountain Winterberry
* " *opaca*	American Holly
" *verticillata*	Common Winterberry
" *vomitoria*	Yaupon
Itea virginica	Sweetspire
**Juglans nigra*	Black Walnut
" *regia*	Persian Walnut
Kalmia angustifolia	Lambkill
* " *latifolia*	Mountain-laurel

**Koelreuteria paniculata*	Goldenrain Tree
**Larix europaea*	European Larch
* " *laricina*	American Larch
Leucothoe catesbaei	Drooping Leucothoe
Ligustrum ovalifolium	California Privet
" *regelianum*	Regel Privet
" *vulgare*	European Privet
**Liriodendron tulipifera*	Tulip Tree
Lonicera fragrantissima	Winter Honeysuckle
Lythrum salicaria	Purple Loosestrife
**Maclura pomifera*	Osage Orange
**Magnolia acuminata*	Cucumbertree
" *cordata*	Yellow Cucumbertree
* " *fraseri*	Fraser Magnolia
* " *glauca*	Sweetbay
" *grandiflora*	Southern Magnolia
" *macrophylla*	Bigleaf Magnolia
* " *soulangeana*	Saucer "
* " *tripetala*	Umbrella "
**Malus coronaria*	Wild Sweet Crab
" *sylvestris*	Apple
**Miscanthus sinensis*	Eulalia
**Morus alba*	White Mulberry
* " *rubra*	Red "
Myrica cerifera	Southern Waxmyrtle
" *gale*	Sweet Gale
**Nyssa sylvatica*	Tupelo
**Ostrya virginiana*	American Hophornbeam
**Oxydendrum arboreum*	Sourwood
Paliurus spina-christi	Christ-thorn
Periploca graeca	Grecian Silkvine
Phellodendron	Corktree
**Philadelphus coronarius*	Sweet Mockorange
* " *grandiflorus*	Big Scentless Mockorange
Pieris floribunda	Mountain Andromeda
" *mariana*	Staggerbush
**Pinus rigida*	Pitch Pine
* " *strobus*	White Pine
* " *sylvestris*	Scotch Pine
**Platanus acerifolia*	London Planetree
* " *occidentalis*	American "
" *orientalis*	European "
**Populus*	Poplar
" *nigra fastigiata*	Lombardy Poplar
Potentilla fruticosa	Shrubby Cinquefoil
Prunus americana	American Plum
" *maritima*	Beach "
* " *serotina*	Black Cherry
**Ptelea trifoliata*	Common Hoptree
**Pyrus communis var.*	Pear
* " " "	Lady Petre Pear
**Quercus alba*	White Oak
* " *bicolor*	Swamp White Oak
* " *coccinea*	Scarlet Oak
* " *macrocarpa*	Mossycup Oak
" *nigra*	Water Oak

**Quercus palustris*	Pin Oak
* " *phellos*	Willow Oak
" *prinos*	Chestnut Oak
* " *rubra*	Common Red Oak
* " *stellata*	Post Oak
* " *velutina*	Black Oak
Rhamnus caroliniana	Carolina Buckthorn
" *frangula*	Glossy Buckthorn
**Rhododendron catawbiense*	Catawba Rhododendron
" *maximum*	Rosebay "
Rhodotypos kerrioides	Jet Bead
Rhus aromatica	Fragrant Sumac
Ribes aureum	Slender Golden Currant
**Robinia pseudo-acacia*	Common Locust
" *viscosa*	Clammy Locust
Rosa rubiginosa	Sweetbrier
" *setigera*	Prairie Rose
Rubus odoratus	Flowering Raspberry
**Salix*	Willow
**Sassafras variifolium*	Common Sassafras
Sorbus americana	American Mountain Ash
" *aucuparia*	European " "
Spiraea latifolia	Pink Meadow Spiraea
* " *prunifolia*	Bridalwreath
" *salicifolia*	Willowleaf Spiraea
Staphylea trifoliata	American Bladdernut
Stewartia pentagyna	Mountain Stewartia
Symphoricarpos vulgaris	Coral Berry
**Syringa vulgaris*	Common Lilac
**Taxodium distichum*	Common Baldcypress
Taxus canadensis	Canada Yew
Thuja occidentalis	American Arborvitae
* " *orientalis*	Oriental Arborvitae
**Tilia americana*	Linden
* " *europaea*	European Linden
**Tsuga canadensis*	Canada Hemlock
**Ulmus americana*	American Elm
* " *campestris*	English Elm
* " *glabra*	Scotch Elm
Vaccinium corymbosum	Highbush Blueberry
Viburnum prunifolium	Black Haw
Weigela candida	White Weigela
Wisteria frutescens	American Wisteria
Xanthoxylum americanum	Common Prickly-ash
**Yucca filamentosa*	Common Yucca
Zanthorhiza apiifolia	Yellowroot
**Zizyphus jujuba*	Common Jujube

B. Plants in Bartram's Garden north of railroad and where planting has not been confined to plants of Bartram's time. As far as possible, plants have been grouped in families and labeled for the benefit of school children or those who wish to make use of it as a botanical garden.

*—Indicates plants existing when the Fairmount Park Commission assumed control in 1923.

Abelia grandiflora ..... Glossy Abelia
Acanthopanax henryi ..... Henry Aralia
" *pentaphyllum* ..... Bush Aralia
" *simonsi* ..... Simons Bush Aralia
Acer laetum sinica .....
* " *negundo* ..... Boxelder
* " *platanoides* ..... Norway Maple
" *rubrum* ..... Red "
* " *saccharum* ..... Sugar "
**Aesculus octandra* ..... Yellow Buckeye
**Ailanthus glandulosa* ..... Tree of Heaven
Amelanchier canadensis ..... Downy Shadblow
Amorpha fruticosa ..... Indigobush
Aralia chinensis canescens ..... Chinese Hoary Aralia
" *cordata* ..... Udo
" *spinosa* ..... Devils-Walkingstick
Aronia atropurpurea ..... Purple Chokeberry
" *melanocarpa* ..... Black Chokeberry
" " *elata* ..... Glossy Chokeberry
Azalea amoena ..... Amoena azalea
Benzoin aestivale ..... Spicebush
Berberis aggregata ..... Salmon Barberry
" *amurensis* ..... Amur Barberry
" *fremonti* .....
" *gilgiana* .....
" *koreana* .....
" *lucida* .....
" *vernae* ..... Verna Barberry
" *wilsonae* ..... Wilson "
Betula lenta ..... Sweet Birch
" *nigra* ..... Red "
Buddleia davidi magnifica ..... Oxeye Butterflybush
Callicarpa giraldiana ..... Girald's Beautyberry
" *japonica* ..... Japenese "
" *purpurea* ..... Chinese "
Calycanthus floridus ..... Common Sweetshrub
" *mohri* ..... Mohr's Sweetshrub
Caragana arborescens ..... Siberian Pea-tree
" *macimowiczoana* .....
" sp. ..... Pea-shrub
**Catalpa speciosa* ..... Western Catalpa
Celastrus orbiculatus ..... Oriental Bittersweet
" *scandens* ..... American "
Celtis sinensis ..... Chinese Hackberry
Cercis canadensis ..... American Redbud
" *chinensis* ..... Chinese "
Chionanthus virginica ..... White Fringetree
Clethra alnifolia ..... Summersweet
" *barbinervis* ..... Tree Clethra
" *tomentosa* ..... Wooly Clethra
Colutea arborescens ..... Common Bladder-senna

Cornus	*alba*	Tartarian Dogwood
"	*amomum*	Silky Dogwood
"	*controversa*	Giant "
"	*florida*	Flowering Dogwood
"	*officinalis*	Jap. Cornelian-Cherry
"	*paniculata*	Gray Dogwood
"	*sanguinea*	Bloodtwig Dogwood
"	*stolonifera*	Red-osier "
"	" *flaviramea*	Goldentwig "
Corylus avellana atropurpurea		Purple Filbert
Cotoneaster acutifolia		Peking Cotoneaster
"	" *villosula*	Villose Peking Cotoneaster
"	*ambigua*	
"	*apiculata*	
"	*bullata floribunda*	Vilmorin Cotoneaster
"	*divaricata*	Spreading Cotoneaster
"	*foveolata*	
"	*gracilis*	
"	*horizontalis perpusilla*	Rock "
"	*hupehensis*	Hupeh "
"	*lucida*	
"	*meyeri*	Meyers "
"	*nitens*	
"	*obscura*	Indistinct "
"	*racemiflora soongarica*	
"	*wilsoni*	Wilson "
Crataegus	*atrocarpa*	
"	*barrettiana*	Barrett's Hawthorn
"	*brittoniana*	Britton's "
"	*carrierei*	Carriere "
"	*chlorosarca*	
"	*coccinea*	Thicket "
"	*coccinioides*	
"	*compacta*	
"	*compta*	
"	*cordata*	Washington Hawthorn
"	*crus-galli*	Cockspur Thorn
"	" *oblongata*	
"	*delosi*	Bunch Hawthorn
"	*deweyana*	
"	*douglasi*	Black "
"	*fecunda*	Missouri "
"	*ferentaria*	
"	*flabellata*	
"	*fructuosa*	West Chester Hawthorn
"	*georgiana*	
"	*glandulosa rotundifolia*	Roundleaf Hawthorn
"	*integrilosa*	Entire Lobed "
"	*macrantha*	Spike Hawthorn
"	*monogynia stricta*	Pyramid "
"	*oxyacantha*	English "
"	*pinnatifida*	Chinese "
"	*prommisa*	
"	*pruinosa*	Frosted "
"	*rivularis*	River "

Crataegus rotunda	Roundleaf Hawthorn
" *scabrida*	Roughish "
Cydonia oblonga	Common Quince
Cytisus scoparius	Scotch Broom
" *sessilifolius*	Sessile Broom
Deutzia crenata	
Diervilla sessilifolia	Southern Bush-honeysuckle
Elaeagnus argentea	Silver Berry
Euonymus alatus	Winged Euonymus
" *europaeus*	European Burningbush
" " *leucocarpus*	White Fruited Euonymus
" *japonicus*	Evergreen Burningbush
Exochorda grandiflora	Common Pearlbush
Forsythia intermedia	Border Forsythia
" *suspensa*	Weeping "
" " *atrocaulis*	Purplestem "
" *viridissima*	Greenstem "
Fothergilla gardeni	Dwarf Fothergilla
Fraxinus americana	American Ash
**Ginkgo biloba*	Maidenhair-tree
**Gleditsia triacanthos*	Common Honeylocust
Hamamelis virginiana	Common Witch-hazel
Hibiscus syriacus	Purple Shrub-althea
" " *anemoniflora*	Anemone Flower Shrub-althea
" *totus-albus*	"Snowstorm" Shrub-althea
Hydrangea arborescens	Smooth Hydrangea
" " *grandiflora*	Snowhill "
" *hortensis argentea*	
" *paniculata*	Panicle "
" *quercifolia*	Oakleaf "
Ilex crenata	Japanese Holly
" *geniculata*	
" *opaca*	American Holly
" *sieboldi*	
" *verticillata*	Common Winterberry
Indigofera potanini	Potanin Indigo
Jasminum nudiflorum	Winter Jasmine
Juniperus virginiana	Redcedar
" " *glauca*	Silver Redcedar
Kalmia latifolia	Mountain-laurel
Kerria japonica fl. pl.	Double Kerria
Laburnum alpinum	Scotch Laburnum
Larix europaea	European Larch
" *leptolepis*	Japanese "
Lespedeza formosa	Purple Bushclover
Ligustrum ibota	Ibota Privet
" " *regelianum*	Regel Privet
" *ovalifolium*	California Privet
" *vulgare*	European "
Liriodendron tulipifera	Tulip Tree
Lonicera bella	Belle Honeysuckle
" " *albida*	Whitebelle Honeysuckle
" *dioica*	Limber "
" *fragrantissima*	Winter "

Lonicera heckrotti	Everblooming "
" *maacki erubescens*	
" *minutiflora*	Bunchberry "
" *morrowi*	Morrow Honeysuckle
" *muscaviensis*	Moscow "
" *nitida*	
" *notha*	Rutarian "
" *orientalis*	Buckthorn "
" " *longifolia*	
" *prolifera*	Grape "
" *sempervirens*	Trumpet "
" *tatarica*	Tartarian "
Maackia amurensis	Amur Maackia
" " *buergeri*	Buerger's Maackia
**Maclura pomifera*	Osage Orange
**Magnolia acuminata*	Cucumbertree
" *liliiflora gracilis*	
Malus arnoldiana	Arnold Crab
" *baccata*	Yellow Fruited Crab
" " *jacki*	Jack Crab
" " *mandshurica*	Mandshurian Crab
" *floribunda*	Japanese Flowering Crab
" *halliana parkmani*	Parkman Crab
" *ioensis*	Prairie "
" *prunifolia*	Pearleaf "
" *robusta*	Cherry "
" *sargenti*	Sargent "
" *scheideckeri*	Scheidecker Crab
" *sieboldi*	Toringo Crab
" *spectabilis*	Chinese Flowering Crab
" *theifera*	Tea Crab
" *toringoides*	Cutleaf Crab
Myrica carolinensis	Northern Bayberry
Neviusia alabamensis	Snow-wreath
Phellodendron amurense	Amur Corktree
Philadelphus coronarius	Sweet Mock-orange
" *grandiflorus*	Big Scentless Mock-orange
" *pekinensis brachybotrys*	
Photinia villosa	
Physocarpus opulifolia	Common Ninebark
Picea alba	White Spruce
" *englemanni*	Engelman's Spruce
" *excelsa*	Norway Spruce
" *pungens*	Colorado Blue Spruce
Pieris floribunda	Mountain Andromeda
Pinus banksiana	Jack Pine
" *densiflora*	Japanese Red Pine
" *inops*	Scrub Pine
" *montana mughus*	Mugho "
" *nigra austriaca*	Austrian Pine
" *ponderosa*	Western Yellow Pine
" *strobus*	White Pine
" *sylvestris*	Scotch Pine
" *thunbergii*	Japanese Black Pine

**Platanus acerifolia*	London Planetree
" *occidentalis*	American Plane
Populus nigra fastigiata	Lombardy Poplar
" *simoni*	Simon "
Prunus americana	American Plum
" *cerasifera divaricata*	U.S.D.A. No. 37464
" *hortulana*	Hortulan Plum
" *japonica*	Chinese Bush Cherry
" *pissardi*	Purpleleaf Plum
" *reverchonii*	
" *serrulata*	Oriental Cherry
Pseudolarix kaempferi	Golden Larch
Ptelea isophylla	Equal leaf Hoptree
" *tomentosa*	Downy leaf "
" *trifoliata*	Common "
Pyrus betulaefolia	Birchleaf Pear
" *bretschneideri*	Bretschneider Pear
" *calleryana*	Callery Pear
" " *graciliflora*	
" " *tomentosa*	
" *chinensis communis*	Chinese Common Pear
* " *communis*	Common Pear
" *congesta*	
" *oblongifolia*	
" *phaeocarpa*	Dusky Pear
" " *globosa*	Round Fruit Dusky Pear
" *serotina*	Late Pear
" *serrulata*	Serratured Leaf Pear
" *ussuriensis*	Usurian Pear
" " *ovoides*	Oval Ussurian Pear
**Quercus bicolor*	Swamp White Oak
* " *palustris*	Pin Oak
* " *rubra*	Red Oak
Rhamnus dahurica	Dahurian Buckthorn
" *japonica*	
" *utilis*	
Rhododendron hybridum	Hybrid Rhododendron
Rhodotypos kerrioides	Jetbead
Rhus canadensis	Fragrant Sumac
" *copallina*	Shining "
" *cotinus*	Common Smoketree
" *javanica*	Java Sumac
" *typhina*	Staghorn Sumac
" *verniciflua*	Lacquer-tree
Robinia hispida (standard)	Standard Rose-Acacia
" *pseudoacacia*	Common Locust
Rubus odoratus	Purple Flowering Raspberry
Salix caprea	Goat Willow
" *incana*	Rosemary Willow
" *vitellina*	Golden "
" " *pendula aurea*	Bronze Golden Willow
Sophora japonica	Chinese Scholartree
Sorbaria arborea glabrata	Tree-Spiraea
" *assurgens*	Chinese False Spiraea

Sorbaria sorbifolia ..... Ural False Spiraea
" *stellipila* ..... Starry False Spiraea
" sp. ..... False Spiraea
Sorbus domestica ..... (U.S.D.A. 41703) Servicetree
Spiraea alba ..... Meadow Spiraea
" *chamaedryfolia* ..... Germander Spiraea
" *latifolia* ..... Pink Meadow Spiraea
" *reevesii* ..... Reeves Spiraea
" *tomentosa* ..... Hardhack
" *van-houttei* ..... Van Houtte Spiraea
Stephanandra tanakae ..... Yeddo Stephanandra
Styrax americana ..... American Snowbell
" *japonica* ..... Japanese "
" *obassia* ..... Fragrant "
Symphoricarpos racemosa ..... Common Snowberry
" *vulgaris* ..... Coralberry
Syringa josikaea ..... Hungarian Lilac
" *pekinensis* ..... Peking Lilac
" *vulgaris* ..... Common "
Tamarix africana ..... African Tamarix
" *juniperina* ..... Juniper Tamarix
" *pentandra* ..... Fivestamen Tamarix
Taxus baccata ..... English Yew
Thuja orientalis ..... Chinese Arborvitae
**Tilia americana* ..... American Linden
Tsuga canadensis ..... Canada Hemlock
**Ulmus americana* ..... American Elm
* " *campestris* ..... English Elm
* " *glabra* ..... Scotch Elm
Viburnum buddleifolium ..... Woolly Viburnum
" *cassinoides* ..... Withe-rod
" *dentatum* ..... Arrow-wood
" *lantana* ..... Wayfaring-tree
" *lentago* ..... Sheep-Berry
" *opulus* ..... Cranberry-tree
" *rhytidophyllum* ..... Leatherleaf Viburnum
" *rufidulum* ..... Southern Blackhaw
" *sargenti* ..... Sargent Cranberry-bush
" *tomentosum* ..... Doublefile Viburnum
Vitex agnus-castus ..... Lilac Chase-tree
" *negundo incisa* ..... Cutleaf Chaste-tree
Weigela amabilis ..... Rose Weigela
" " *isolina* .....
" " "Othello" .....
" " *venosa* .....
" *coraeensis arborea* ..... Tall Korean Weigela
" *japonica* "Eva Rathke" .....
Zanthoxylum schinifolium ..... Peppertree-Leaf Prickly-Ash
Zelkova keakii ..... Keake's Zelkova

Bartram Bibliography

JOHN HENDLEY BARNHART

Published Writings of John Bartram (1699–1777)

BOOKS

(1) Medicina britannica: or a treatise on such physical plants, as are generally to be found in the fields or gardens in Great-Britain: containing a particular account of their nature, virtues, and uses. Together with the observations of the most learned physicians, as well ancient as modern, communicated to the late ingenious Mr. Ray, and the learned Dr. Sim. Pauli. Adapted more especially to the occasions of those, whose condition or situation of life deprives them, in a great measure, of the helps of the learned. By Tho. Short, of Sheffield, M.D. To which is added, an appendix: containing the true preparation, preservation, uses and doses of most forms of remedies necessary for private families. The third edition. With a preface by Mr. John Bartram, botanist of Pennsylvania, and his notes throughout the work, shewing the places where many of the described plants are to be found in these parts of America, their differences in name, appearance and virtue, from those of the same kind in Europe; and an appendix, containing a description of a number of plants peculiar to America, their uses, virtues, &c. London printed: Philadelphia re-printed, and sold by B. Franklin, and D. Hall, at the Post-Office, in Market-street. MDCCLI. Title-page [i], iii–xx, 1–339, 1–40, 1–7.

"Mr. Bartram's Preface to this work" occupies pages xvii–xx; "Mr. Bartram's Appendix" comprises the last 7 pages, separately paged; and Bartram's annotations are scattered "throughout the work," as stated on the title-page.

(2) Observations on the inhabitants, climate, soil, rivers, productions, animals, and other matters worthy of notice. Made by Mr. John Bartram, in his travels from Pensilvania to Onondago, Oswego and the Lake Ontario, in Canada. To which is annex'd, a curious account of the cataracts at Niagara. By Mr. Peter Kalm, a Swedish gentleman who travelled there. London: Printed for J. Whiston and B. White, in Fleet-Street,

1751. (Price one shilling and six-pence.) Title-page, i–viii, 9–94, *frontispiece.*

(2a) [Reprint of the preceding.] Reprinted by W. F. Humphrey, Geneva, N. Y., 1895.

This is a page-for-page reprint, but not in facsimile; the frontispiece is much reduced in size, and two illustrations are added: (1) A map of Pensilvania, New-Jersey, New-York, and the three Delaware counties: By Lewis Evans, MDCCXLIX; (2) A view of the fall of Niagara, from the Gentleman's Magazine, February, 1751.

(3) An account of East-Florida, with a journal, kept by John Bartram of Philadelphia, Botanist to His Majesty for the Floridas; upon a journey from St. Augustine up the River St. John's. London: Sold by W. Nicoll, at N°. 51, St. Paul's Church-Yard; and G. Woodfall, Charing-Cross. (Price four shillings.) [1767.] Title-page [i], iii–viii [introduction], [i–iv, dedication], i–xxii [introduction], 23–90, title-page to Journal, 1–70.

The first introduction is signed "William Stork, M.D."; the dedication, "William Stork." Although not so indicated on the title-page, this was the second edition of Stork's work; the first edition, about six months earlier [1766], did not contain Bartram's Journal. The second title-page, preceding the last 70 pages, reads "A journal, kept by John Bartram of Philadelphia, Botanist to His Majesty for The Floridas; upon a journey from St. Augustine up the River St. John's. With explanatory notes."

(3a) An account of East Florida; with a journal, kept by John Bartram, of Philadelphia, Botanist to his majesty for The Floridas, upon a journey from St. Augustine up the River St. John's. London: Sold by W. Nicoll, at No. 51 St. Paul's Church-Yard, and G. Woodfall, Charing Cross. (Price four shillings.) [On page 2, the reverse of the title-page:] Fernandina, Florida, 1881: Reprinted from the original edition of 1765, at the office of the Florida Mirror. 1–50.

Bartram's journal occupies pages 29–50. There is a footnote by the editor of the Mirror, which is very misleading, on page 9. The original edition could not have been "of 1765," for the later entries in Bartram's journal were dated in January and February, 1766.

(4) A description of East-Florida, with a journal, kept by John Bartram of Philadelphia, Botanist to His Majesty for The Floridas; upon a journey from St. Augustine up the River St. John's, as far as the lakes. With explanatory botanical notes. Illustrated with an accurate map of East-Florida, and two plans; one of St. Augustine, and the other of the bay of Espiritu Santo. The third edition, much enlarged and improved. . . . London: Sold by W. Nicoll. at N°: 51, St. Paul's Church Yard; and T. Jefferies, at Charing-Cross, Geographer to His Majesty. MDCCLXIX. Quarto. Title-page [i], dedication [i, ii], i–viii [introduction], 1–40, title-page to Journal, i–xii [introduction to Journal], 1–36, *3 maps.*

The second title-page reads "A journal, kept by John Bartram of Philadelphia, Botanist to His Majesty for The Floridas; upon a journey from St. Augustine up the River St. John's as far as the lakes. With explanatory botanical notes."

(5) A description of East-Florida, with a journal, kept by John Bartram of Philadelphia, Botanist to His Majesty for the Floridas; upon a journey from St. Augustine up the River St. John, as far as the lakes. With explanatory botanical notes. Illustrated with an accurate map of East Florida, and two plans; one of St. Augustine, and the other of the bay of Espiritu Santo. The fourth edition. . . . London: Printed for Faden and Jefferys, the Corner of St. Martin's Lane, Charing-Cross, Geographer to His Majesty; and W. Nicoll, at N°. 51, St. Paul's Church-Yard. MDCCLXXIV. (Pagination and maps as in the preceding (third) edition.)

The portion of the title-page omitted above, in the case of editions 3 and 4, consisted of these lines:

> Hic Segetes, illic veniunt felicius Uvae
> Arborei fructus alibi, atque injussa virescunt
> Gramina. Nonne vides croceos ut Tmolus Odores,
> India mittit Ebur, molles sua Thura Sabaei?
> Virg. Georg.

PAPERS IN PERIODICALS

(6) A letter from John Bartram, M.D., to Peter Collinson, F.R.S., concerning a cluster of small teeth observed by him at the root of each fang or great tooth in the head of a rattle-

snake, upon dissecting it. Phil. Trans. **41**: 358, 359. 1742. (The letter dated 17 July 1734.)

Abstract in Phil. Trans. 1665–1750 Abr. **9**: 60. 1747.

Abstract in Phil. Trans. 1665–1800 Abr. **8**: 409. 1809.

(7) Extract of a letter from Mr. John Bartram to Mr. Peter Collinson, F.R.S., containing some observations concerning the salt-marsh muscle, the oyster-banks, and the fresh-water muscle, of Pennsylvania. Phil. Trans. **43**: 157–159. *pl. 2, f. 1.* 1745. (Read 8 November 1744.)

Abstract in Phil. Trans. 1665–1750 Abr. **10**: 860, 861. 1756.

Abstract in Phil. Trans. 1665–1800 Abr. **9**: 70, 71. 1809.

(8) An account of some very curious wasps nests made of clay in Pensilvania; by Mr. John Bartram: communicated by Mr. Peter Collinson. Phil. Trans. **43**: 363–366. 1745. (Read 25 April 1745.)

Abstract in Phil. Trans. 1665–1750 Abr. **10**: 847, 848. 1756.

Abstract in Phil. Trans. 1665–1800 Abr. **9**: 123, 124. 1809.

(9) A description of the great black wasp, from Pennsylvania, as communicated from Mr. John Bartram to Mr. Peter Collinson, F.R.S. Phil. Trans. **46**: 278, 279. *pl. 4, f. 20.* 1750. (Read 21 December 1749.)

Abstract in Phil. Trans. 1665–1750 Abr. **10**: 848, 849. 1756.

Abstract in Phil. Trans. 1665–1800 Abr. **9**: 699. *pl. 12, f. 9.* 1809.

(10) Some observations on the dragon-fly or Libella of Pensilvania, collected from Mr. John Bartram's letters, communicated by Peter Collinson, F.R.S. Phil. Trans. **46**: 323–325. 1751. (Read 1 February 1749/50.)

Abstract in Phil. Trans. 1665–1750 Abr. **10**: 845, 846. 1756.

Abstract in Phil. Trans. 1665–1800 Abr. **10**: 4, 5. 1809.

(11) A further account of the Libellae or May-flies, from Mr. John Bartram of Pennsylvania, communicated by Mr. Peter Collinson, F.R.S. Phil. Trans. **46**: 400–402. 1751. (Read 5 April 1750.)

Abstract in Phil. Trans. 1665–1750 Abr. **10**: 846, 847. 1756.

Abstract in Phil. Trans. 1665–1800 Abr. **10**: 28. 1809.

(12) Extract of a letter from Mr. John Bartram, of Philadelphia, to Benjamin Franklin, LL.D., F.R.S., relating to a remarkable aurora borealis. Phil. Trans. **52**: 474. 1762. (Read 25 February 1762.)

Abstract in Phil. Trans. 1665–1800 Abr. **11**: 614. 1809.

(13) Observations made by Mr. John Bartram, at Pensilvania, on the yellowish wasp of that country: in a letter to Mr. Peter Collinson, F.R.S. Phil. Trans. **53**: 37, 38. 1764. (Read 24 February 1763.)

Abstract in Phil. Trans. 1665–1800 Abr. **11**: 685, 686. 1809.

(14) Notices of the epidemics of Pennsylvania and New-Jersey, in the years 1746, 1747, 1748, and 1749. Phila. Med. & Phys. Jour. **1**[1]: 3–5. N 1804.

(15) Additional observations on the Cicada septendecim. Phila. Med. & Phys. Jour. **1**[1]: 65–67. N 1804.

(16) [Memorandums concerning the earthquakes of North-America.] Supplement. Phila. Med. & Phys. Jour. **1**[1]: 65–67. N 1804.

Besides the above, William Darlington, in his "Memorials of John Bartram and Humphry Marshall" (1849), published 96 letters of John Bartram; on pages 194 and 195, John Bartram's "A journey to the Katskill Mountains, with Billy, 1753"; and on pages 383–388, John Bartram's "A brief account of those plants that are most troublesome in our pastures and fields, in Pennsylvania, most of which were brought from Europe."

Published Writings of William Bartram (1739–1823)

BOOKS

(1) Travels through North & South Carolina, Georgia, East & West Florida, the Cherokee Country, the extensive territories of the Muscogulges, or Creek Confederacy, and the country of the Chactaws; containing an account of the soil and natural productions of those regions, together with observations on the manners of the Indians. Embellished with copper-plates. By William Bartram. Philadelphia: Printed

by James & Johnson. M,DCC,XCI. Title-page [i, ii], i–xxxiv, 1–522, *frontispiece, 7* (unnumbered) *plates, map.*

(1a) Travels through North and South Carolina, Georgia, East and West Florida, the Cherokee Country, the extensive territories of the Muscogulges or Creek Confederacy, and the country of the Chactaws. Containing an account of the soil and natural productions of those regions; together with observations on the manners of the Indians. Embellished with copper-plates. By William Bartram. Philadelphia: Printed by James and Johnson. 1791. London: Reprinted for J. Johnson, in St. Paul's Church-Yard. 1792. i–xxiv, 1–520, index [i–vii], *frontispiece, pl. 1–7, map.*

(1b) Travels through North and South Carolina, Georgia, East and West Florida, the Cherokee Country, the extensive territories of the Muscogulges or Creek Confederacy, and the country of the Chactaws. Containing an account of the soil and natural productions of those regions; together with observations on the manners of the Indians. Embellished with copper-plates. By William Bartram. Dublin: For J. Moore, W. Jones, R. M'Allister, and J. Rice. 1793. i–xxiv, 1–520, index [i–xii], *frontispiece, pl. 1–7, map.*

(1c) Travels through North and South Carolina, Georgia, East and West Florida, the Cherokee Country, the extensive territories of the Muscogulges or Creek Confederacy, and the country of the Chactaws. Containing an account of the soil and natural productions of those regions; together with observations on the manners of the Indians. Embellished with copper-plates. By William Bartram. The second edition in London. Philadelphia: Printed by James and Johnson. 1791. London: Reprinted for J. Johnson, in St. Paul's Church-Yard. 1794. i–xxiv, 1–520, index [i–vii], *frontispiece, pl. 1–7, map.*

(1d) The travels of William Bartram. (An American bookshelf. 3. Travels through North and South Carolina, Georgia, East and West Florida, by William Bartram.) [New York], 1928. Macy-Masius: Publishers. 1–414. [Not illustrated.]

(2) William Bartram's Reisen durch Nord- und Süd-Karolina, Georgien, Ost- und West-Florida, das Gebiet der Tscherokesen, Krihks und Tschaktahs, nebst umständlichen Nachrichten von den Einwohnern, dem Boden und den Naturprodukten dieser wenig bekannten grossen Länder. Aus dem Englischen. Mit erläuternden Anmerkungen von E. A. W. Zimmermann, Hofrath und Professor in Braunschweig. Mit Kupfern. Berlin, in der Vossischen Buchhandlung. 1793. i–xxvi, 1–469, *pl. 1–8.*

The translator and editor, Eberhard August Wilhelm Zimmermann (1743–1815), was a German mathematician and geographer.

(3) Reizen door Noord- en Zuid-Carolina, Georgia, Oost- en West-Florida; de landen der Cherokees, der Muscogulges, of het Creek Bondgenootschap en het land der Chactaws. Door William Bartram. Uit het Engelsch vertaald, door J. D. Pasteur. Te Haarlem, bij Francois Bohn. 3 volumes. 1794–97.

The first volume has an engraved title-page, with a vignette of "Mico Chlucco, Konig van de Siminoles" (this corresponds with the frontispiece in the English editions); the second and third volumes have type-set title-pages.

Vol. 1. MDCCXCIV. Title-page, i–xxvi [Inleiding], Inhoud [i, ii], 1–226, *map*.
Vol. 2. Tweede stuk. MDCCXCV. Inhoud [i, ii], 227–500.
Vol. 3. Derde en laatste stuk. MDCCXCVII. iii–x [Inhoud], 501–696.

The translator, Jean David Pasteur (1753–1804), was a Dutch zoologist, who also translated various other works into his native language from French and English.

(4) Voyage dans les parties sud de l'Amérique septentrionale; savoir: les Carolines septentrionale et méridionale, la Georgie, les Florides orientale et occidentale, le pays des Cherokées, le vaste territoire des Muscogulges ou de la confédération Creek, et le pays des Chactaws; contenant des détails sur le sol et les productions naturelles de ces contrées, et des observations sur les moeurs des Sauvages qui les habitent. Par Williams Bartram. Imprimé à Philadelphie, en 1791, et à Londres, en 1792, et trad. de l'angl. par P. V. Benoist. Tome premier (et second). A Paris, Chez Carteret et Brosson, libraires, rue Pierre-Sarrasin, n^{os} 13 et 7. Dugour et Durand, rue et maison Serpente. An VII [1799].

Vol. 1. Title-pages, 1–459, *frontispiece, pl. 1, 2, map.*
Vol. 2. Title-pages, 1–437, *pl. 3.*

The translator, Pierre Vincent Benoist (1758–1834), was a French publicist, who also translated other works from English.

(4a) [Same as preceding, except] A Paris, Chez Maradan, Libraire, rue Pavée Saint-André-des-Arcs, n^{o} 16. An IX [1801].

PAPERS IN PERIODICALS

(5) Account of the species, hybrids, and other varieties of the vine of North America. Med. Repos. II. 1: 19–24. Jl 1803.

(6) Anecdotes of an American crow. Phila. Med. & Phys. Jour. **1**[1]: 89–95. N 1804. Reprinted in Jour. Nat. Phil. **12**: 194–198. N 1805.

(7) Some account of the late Mr. John Bartram, of Pennsylvania. Phila. Med. & Phys. Jour. **1**[1]: 115–124. N 1804.

(8) Description of an American species of Certhia, or creeper. Phila. Med. & Phys. Jour. **1**[2]: 103–106. *pl. 1.* My 1805.

(9) Conjectures relative to the scite of Bristol, in Pennsylvania. Phila. Med. & Phys. Jour. **1**[2]: 131–133. My 1805.

(10) Observations on the pea fly or beetle, and fruit curculio. (Read July 14th, 1789 [with additions, January, 1808].) Mem. Phila. Soc. Prom. Agr. **1**: 317–323. 1808.

(11) Observations on the Creek and Cherokee Indians. By William Bartram. 1789. With prefatory and supplementary notes by E[phraim] G[eorge] Squier. Trans. Am. Ethnol. Soc. **3**: 1–81. 1853. (Also reprinted in facsimile, 1909.)

Besides the above, Witmer Stone has published the bird migration records of William Bartram, 1802–1822 (Auk II. **30**: 325–358. *pl. 9–11.* Jl 1913).

Publications relating to John and William Bartram, and the Bartram Garden

This bibliography makes no claim to completeness, but is placed on record as the groundwork upon which some one may build a better one at some time in the future. Of course no attempt whatever has been made to enumerate all of the general and biographical cyclopedias which contain accounts of one or both of the Bartrams.

[Abbot, Elizabeth O.]

Bartram's Garden, Philadelphia, Pa. Published by the John Bartram Association, March, 1904. 1–15, *7 plates.*

This bears just beneath the title directions for reaching the Garden, and on the lower half of the page a second title: John Bartram, Born near Darby, Pa., 23rd. March, 1699. Died at Bartram's Garden, 22nd September, 1777. [The book was published anonymously, but the simi-

larity of title-page and other details would seem to show that it was also prepared by the author of the next item.]
Re-issued, Au 1907.

Abbot, Elizabeth O.

Bartram's Garden, Philadelphia, Pa. Issued by The John Bartram Association, March, 1904. Re-issued with new plan of Garden, etc., August, 1907. Re-issued, 1915. 1–40. *9 illustrations.*

On the lower half of the title-page this repeats the second title of the 1904 edition. The plates are mostly different, thus as frontispiece instead of the supposed portrait of John Bartram is substituted the moss *Bartramia halleriana.*

[Anderson, Edgar Shannon, 1891–.]

American botanical gardens and English poetry. Missouri Bot. Gard. Bull. 16: 115–122. *pl. 36.* N 1928.

Discusses the influence of William Bartram's Travels on the poetry of Wordsworth and Coleridge.

[Anonymous.] ("A Massachusetts subscriber.")

Trees and pleasure grounds in Pennsylvania. Horticulturist 5: 251–255. D 1850.

The anonymous writer, referred to by the editor of the Horticulturist as "our fair correspondent," was probably Isabella Batchelder (1819–1901). She then lived in Cambridge, Massachusetts; had been assisting Darlington with his Memorials of Bartram and Marshall; and in the following year, 1851, became the wife of Thomas Potts James, the bryologist.

[Anonymous.]

The Bartram tribute. Published as an auxiliary aid to the purposes of the festival given by the ladies of St. James' Episcopal Church. "Bartram Garden," Kingsessing, June 13 & 14, 1860. 1–8.

Includes biographical sketch of John Bartram, and reprint of letter of Iwan Alexiowitz.

[Anonymous.]

Account of the Bartram garden, published in "The Horticulturist" in 1850. Revised and corrected by the author, and now printed for the Central Fair in aid of the U. S. Sanitary Commission. Sold at the Fête Champêtre held at Bartram for the same object. May 18th, 1864. Printed by C. Sherman, Son & Co. 1–11.

No title-page; the title appears only on the paper cover.

[Anonymous.]

An account of the Bartram garden, Philadelphia, published in "The Horticulturist" in 1850. Revised and corrected by the author. Printed for the Central Fair in aid of the U. S. Sanitary Commission. Sold at the Fete Champetre held at Bartram for the same object, May 18th, 1864. With an added facsimile of an early broadside: "Catalogue of American trees and herbacious plants most of which are now growing and producing ripe seed in John Bartram's garden." Philadelphia, Newman F. McGirr, 1929. [1–8.]

[Anonymous.]

At Bartram's Garden. 3 pages.

Verses "read at a reunion of the descendants of John Bartram, held at the Garden, Sixth month, 8th, 1893."

Bailey, Liberty Hyde, 1858–.

In Bartram's garden. Meehan's Monthly 7: 50. Mr 1897.

Verses; accompanied by notes on Bartram and his garden [by Thomas Meehan].

Barnhart, John Hendley, 1871–.

[John Bartram.] Jour. N. Y. Bot. Gard. 18: 239. 18 D 1917.

Reprinted, slightly modified, in Jour. N. Y. Bot. Gard. 21: 30. "F" [9 Ap] 1920.

Barnhart, John Hendley, 1871–.

[William Bartram.] Jour. N. Y. Bot. Gard. 18: 239, 240. 18 D 1917.

Reprinted in Jour. N. Y. Bot. Gard. 21: 31. "F" [9 Ap] 1920; and, slightly modified, in the same journal, 20: 202. "O" [8 N] 1919; 24: 27. [19] F 1923; 24: 224. "O" [10 N] 1923; and 27: 197. [27] S 1926.

Barnhart, John Hendley, 1871–.

[William Bartram.] Jour. N. Y. Bot. Gard. 22: 124, 125. "Jl" [24 S] 1921.

Reprinted in Jour. N. Y. Bot. Gard. 24: 108. "Je" [18 Jl] 1923, and 29: 6. [28 Ja] 1928.

Barnhart, John Hendley, 1871–.

[John Bartram.] Jour. N. Y. Bot. Gard. 22: 127. "Jl" [24 S] 1921.

Reprinted in Jour. N. Y. Bot. Gard. 24: 151. [31] Au 1923, and 29: 150. [18] Jl 1928.

Bédier, Charles Marie Joseph, 1864–.

Études critiques. 1–294. 1903.

Discusses on pages 201–203, 206–219, 224–226, 249–258, 264, 265, 269, 271, 273, 277, 278, 283–287, and 290, the influence of William Bartram's Travels upon the work of Chateaubriand.

Britten, James, 1846–1924.

Bibliographical notes. XXXVIII. John Bartram's Travels. Jour. Bot. 44: 213, 214. Je 1906.

Bunting, Morgan, 1863–1929.

Genealogical chart of the Bartram family. [Broadside.] Darby, Pa., 1895.

[Cadbury, Henry Joel, 1883–.]

The disownment of John Bartram. Bull. Friends Hist. Assoc. 17: 16–22. 1928.

Capen, Oliver Bronson, 1878–.

Chapter VII. John Bartram. In his: Country homes of famous Americans. 157–160. O 1905.

Chinard, Gilbert, 1881–.

L'exotisme américain dans l'oeuvre de Chateaubriand. i–x, 1–305. 1918.

Discusses, on pages 254–272, the influence of William Bartram's Travels upon the work of Chateaubriand.

Chinard, Gilbert, 1881–.

Chateaubriand: Les Natchez, Livres I et II. Contribution à l'étude des sources de Chateaubriand. Univ. Calif. Publ. Mod. Philol. 7: 201–264. 23 Ja 1919.

Coleridge, Ernest Hartley, 1846–.

Coleridge, Wordsworth, and the American botanist William Bartram. Trans. Roy. Soc. Literat. II. 27: 69–92. 1906.

Cooper, Lane, 1875–.

Methods and aims in the study of literature. i–ix, 1–239. 1915.

Discusses, on pages 110, 115, 116, 119, 120, 124, and 125, the influence of William Bartram's Travels upon the writings of Wordsworth, Coleridge, and Bowles.

Cooper, Lane, 1875–.

Travellers and observers, 1763–1846. Cambridge history of American literature. 1: 185–214. 1917.

The travels of John and William Bartram discussed on pages 194–198.

C[ooper], L[ane], 1875–.

Bartram, William. In: **Johnson, Allen,** 1870–1931. Dictionary of American biography. 2: 28, 29. 1929.

Coues, Elliott, 1842–1899.

Fasti ornithologiae redivivi. No. 1.—Bartram's "Travels." Proc. Acad. Nat. Sci. Phila. 1875: 338–358. 1875.

Crèvecoeur, Michel Guillaume Jean de, 1735–1818. **("St. John, J. Hector.")**

Letter XI. From Mr. Iw_n Al_z, a Russian gentleman; describing the visit he paid at my request to Mr. John Bartram the celebrated Pensylvanian botanist. In his: Letters from an American farmer. 247–269. London, 1782.

Also in later editions: 247–269. London, 1783; 189–204. Philadelphia, 4 Mr 1793; 258–280. New York, 1904; 182–197. London (Everyman's Library), [1913].

In the Philadelphia edition of 1793, the name "Iwan Alexiowitz" is spelled out in the chapter-title and at the end of the chapter; and the name Bartram is spelled correctly throughout.

Iwan Alexiowitz is commonly regarded as a myth, but is more likely to be a pseudonym, or the first and middle names of a real person; for

why should Crévecoeur (St. John) repudiate this letter, while acknowledging all the others as the product of his own pen?

Crèvecoeur, Michel Guillaume Jean de, 1735–1818. **("St. John, J. Hector.")**

Eilfter Brief. Von Herrn Iwan Al_z, einem Russischen Reisenden. Beschreibung seines, auf meinen Vorschlag, bey Herrn John Bertram, dem berühmten Pensylvanischen Kräuterkenner, abgelegten Besuches. In his: Sittliche Schilderungen von Amerika, in Briefen eines Amerikanischen Guthsbesitzers. 357–388. Liegnitz und Leipzig, 1784.

Translated from the English.

Crèvecoeur, Michel Guillaume Jean de, 1735–1818. **("St. John, J. Hector.")**

Lettre écrite par Iwan Al–z, gentilhomme russe, è un de ses amis en Europe, dans laquelle il décrit la visite qu'il fit en 1769 à Jean Bertran, botaniste de Pensylvanie, & pensionnaire du roi d'Angleterre. Philadelphie, 12 Octobre 1769. In his: Lettres d'un cultivateur américain. 1: 137–171. Paris, 1784.

This 2-volume work, purporting to be a translation from the English, is really very different from the English edition, containing several times as much matter and differently arranged; the author was French by birth, and saw this edition through the press while on a visit to his native land.

Also said to exist with imprint: Paris, 1787.

Darlington, William, 1782–1863.

Memorials of John Bartram and Humphry Marshall. With notices of their botanical contemporaries. i–xv, 17–585. Philadelphia: Lindsay & Blakiston. 1849. [With 4 unnumbered plates.]

Includes: ''Biographical sketch of John Bartram,'' pages 37–57; 96 letters of John Bartram, one reproduced also in facsimile; John Bartram's ''A journey to the Katskill Mountains, with Billy, 1753,'' pages 194 and 195; John Bartram's ''A brief account of those plants that are most troublesome in our pastures and fields, in Pennsylvania, most of which were brought from Europe,'' pages 383–388; and a sketch of William Bartram, pages 288–290.

Dillingham, William Henry, 1791–1854.

A tribute to the memory of Peter Collinson, with some notice of Dr. Darlington's Memorials of John Bartram and Humphry Marshall. Second edition, with additional notes and an appendix. 1–48, *frontispiece* [*portrait*]. Philadelphia: Henry Longstreth, 347 Market St., 1852.

Devoted almost as much to John Bartram as to Peter Collinson. The ''first edition'' does not seem to have been issued separately; it appeared anonymously in a magazine, the preceding year, under the title ''Peter Collinson'' (Bibl. Repert. & Princeton Rev. 23: 416–450. Jl 1851).

Dock, Mira Lloyd.

Bartram's garden to-day. Gard. & For. 9: 122–124. *f. 13–15.* 25 Mr 1896.

[Doughty, J.]

Biographical sketch of William Bartram. Cab. Nat. Hist. & Amer. Rural Sports 2: i–vii. *portrait.* 1832.

The portrait is the first engraved one of William Bartram; on page i is included a brief biographical sketch of John Bartram.

Faris, John Thomson, 1871–.

How John Bartram learned nature's lessons. In his: The romance of forgotten men. 24–33. 1928.

Fox, Richard Hingston, 1853–.

Botany in the eighteenth century: Peter Collinson, John Bartram. In his: Dr. John Fothergill and his friends. 157–181. 1919.

Fox, Richard Hingston, 1853–.

John Bartram, botanist. Friends Quart. Exam. **1915**: 145–153. Ap 1915.

Gee, William Parham, 1888–.

William Bartram. Bull. Univ. S. C. **72**: 17–19. S 1918.

Harshberger, John William, 1869–1929.

John Bartram. In his: The botanists of Philadelphia and their work. 46–76. [Au] 1899.

With 7 unnumbered plates; and the Bartram coat-of-arms is reproduced in color as the frontispiece of the volume.

Harshberger, John William, 1869–1929.

William Bartram. In his: The botanists of Philadelphia and their work. 86–88. [Au] 1899.

Harshberger, John William, 1869–1929.

The old gardens of Pennsylvania. I. Bartram arboretum and park. Gard. Mag. 32: 78–80. O 1920.

Kelly, Howard Atwood, 1858–.

John Bartram. In his: Some American medical botanists. 49–59. [Ap] 1914. [With 2 unnumbered plates.]

L., J. H.

Bartram's diary. Gard. Mo. **11**: 132, 133. My 1869.
William Bartram's diary, 1802–08.

L[ippincott, James Starr], 1819–1885.

Sketches of Philadelphia botanists. III. John and William Bartram and Humphrey Marshall. Gard. Mo. **2**: 271–273. S 1860.

Lowes, John Livingston, 1867–.

The road to Xanadu. A study in the ways of the imagination. i–xviii, 1–639. Boston and New York: Houghton Mifflin Company. 1927.

Discusses, in much detail (especially 7–11, 364–370, 452–455, 586–588), the influence of William Bartram's Travels on the imagery of Coleridge's poem, "Kubla Khan," of Wordsworth's "Ruth," and of other writings of these two authors; and even, "sublimated," of Lafcadio Hearn's "To the Fountain of Youth."

Mease, James, 1771–1846.

Bartram's botanic garden on the Schuylkill, near Philadelphia. Gard. Mag. Loudon 7: 665, 666. D 1831.

Meehan, Thomas, 1826–1901.

The American handbook of ornamental trees. i–xv, 25–257. Philadelphia: Lippincott, Grambo, and Co. 1853.

Originally planned to discuss only the trees of Bartram's Garden, to which it gives special attention. See footnote on page 39 of this issue of BARTONIA.

Meehan, Thomas, 1826–1901.

The old botanical garden of Bartram. Gard. Mo. 27: 26, 27. Ja 1885.

[Meehan, Thomas, 1826–1901.]

John Bartram. Meehan's Monthly 1: 31. Au 1891.

[Meehan, Thomas, 1826–1901.]

John Bartram. Meehan's Monthly 3: 126. Au 1893.

[Meehan, Thomas, 1826–1901.]

John Bartram's wood-shed. Meehan's Monthly 6: 17. Ja 1896. [With an illustration on page 11.]

[Meehan, Thomas, 1826–1901.]

History of John Bartram. Meehan's Monthly 9: 96. Je 1899.

Meyer, Friedrich Albrecht Anton, 1765–1795.

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[Sargent, Charles Sprague, 1841–1927.]

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Plate 9 is a portrait of William Bartram.

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Some account of the nursery gardens and the state of horticulture in the neighbourhood of Philadelphia, with remarks on the subject of the emigration of British gardeners to the United States. Gard. Mag. London 8: 272–277. Je 1832.

Wynne was then foreman of the Bartram Garden.

[Youmans, William Jay, 1838–1901.]

Sketch of John and William Bartram. Pop. Sci. Mo. 40: 827–839. Ap 1892.

[Youmans, William Jay, 1838–1901.]

A portrait of William Bartram. Pop. Sci. Mo. 41: 561, 562. Au 1892.

The portrait here discussed was published in the following number of Pop. Sci. Mo. (S 1892), facing page 577.

Youmans, William Jay, 1838–1901.

John Bartram, 1699–1777, and William Bartram, 1739–1823. In his: Pioneers of Science in America. 24–39. *pl.* 1896.

The plate is a portrait of William Bartram.

Catalogues of the Bartram Garden

From time to time (annually, it is supposed), for many years, trade catalogues were issued from the Bartram Garden, but they were of an ephemeral character, and few seem to have been preserved. The earliest of those now existing is probably that reproduced in facsimile by McGirr, in his reprint of the anonymous "Account of the Bartram garden" (1929); the facsimile shows no date. There are copies in Philadelphia of the catalogue of 1807, 1828, and 1836, and the catalogue of the national library in Paris lists one for 1814. If others exist, it is desirable that the fact should be placed on record, as they are documents of much value in their bearing upon the history of American horticulture. The owner of the garden when the earlier catalogues were published was John Bartram Jr. (1743–1812); his brother, William, lived with him, and may have taken some part in the preparation of the catalogues.

(1) Catalogue of American trees, shrubs and herbacious plants, most of which are now growing, and produce ripe seed in John Bartram's Garden, near Philadelphia. The seed and growing plants of which are disposed of on the most reasonable terms. [No date.] Broadside.

Reprinted in facsimile in McGirr's reprint of the "Account of the Bartram Garden" (the last item entered under "*Anon.*" in the preceding list).

(2) A catalogue of trees, shrubs, and herbaceous plants, indigenous to the United States of America; cultivated and disposed of by John Bartram & Son, At their Botanical Garden, Kingsess, near Philadelphia. To which is added a catalogue of foreign plants, collected from various parts of the globe. Philadelphia: printed by Bartram and Reynolds, No. 58, North Second street. 1807. 1–33.

(3) A catalogue of trees, shrubs and herbaceous plants, indigenous to the United States of America, cultivated and for sale at Bartram's Botanical Garden. Philadelphia: Printed by R. & W. Core. 1814. 1–63.

(Not seen.)

(4) Periodical catalogue of fruit and ornamental trees and shrubs, green house plants, &c. cultivated and for sale at Bartram's Botanic Garden, Kingsessing, near Gray's Ferry—four miles from Philadelphia. Robert Carr, Proprietor. Philadelphia: Russell and Martien, printers. 1828. 1–48.

(5) Periodical catalogue of fruit and ornamental trees and shrubs, green-house plants, &c. cultivated and for sale at the Bartram Botanic Garden, Kingsessing, near Gray's ferry, three miles from Philadelphia. Robert Carr, proprietor. Philadelphia: William S. Martien, printer. 1836. i–iv, 1–56.

Permanent Bartram Exhibition at the Academy of Natural Sciences

At the time of the Celebration an exhibition of books, letters, and personal possessions of John and William Bartram was made possible by the generosity and cooperation of various institutions and individuals. Much of the material could be assembled only for this special occasion, but such interest was aroused that a permanent exhibit has been opened at the Academy of Natural Sciences. In this are shown photographs of the herbarium specimens collected by John Bartram and now in the British Museum, copies of paintings by William Bartram, photographs of drawings by William Bartram, books which belonged to Peter Collinson, drafts of letters of John Bartram, copies of William Bartram's Travels, etc. and etc.

The following additions deserve especial mention:

(1) A copy of "The Characters of Linnaeus," given to John Bartram in 1743 by Doctor Gronovius, and bearing Bartram's signature. To commemorate the 200th anniversary this book was presented to the John Bartram Association by Miss Mira Lloyd Dock in June, 1931, "In grateful appreciation of help received from Doctor John M. Marfarlane in her studies of John Bartram's life and collections in 1896 and 1897."

(2) John Bartram's silver watch, made by Hutchins in London about 1670; loaned to the John Bartram Association by Nathaniel Penrose Grimm, a direct descendant of the botanist.

(3) Bell, used by John Bartram on his travels in the Carolinas and Florida to fasten at night to the neck of his saddle horse; loaned by Morris Bartram, a direct descendant of the botanist.

(4) Fork, used by John Bartram on his botanical trips; loaned by Frank Bartram, a direct descendant of the botanist.

(5) Slave deed, 1772, signed by William Bartram; given to the John Bartram Association June 1931 by Miss Anne Heygate-Hall, former President of the Association.

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